THE FORMS OF VALUE

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The Extension of a Hedonistic Axiology

A. L. HILLIARD

New York 1950

COLUMBIA UNIVERSITY PRESS

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PUBLISHED IN GREAT BRITAIN, CANADA, AND INDIA BY
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LONDON, TORONTO, AND BOMBAY

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οὐ μὲν ἐλπίζω εἰς τοὺς τῷ τέλει ἐπισήμους
ἐγκριθήσεσθαι, ἀλλ᾽ εἰς τοὺς τῷ βουλεύματι

Acknowledgments

THE ACKNOWLEDGMENT of a philosopher's indebtedness to his predecessors, especially when expressed obliquely in the form of a bibliography, is not infrequently made the occasion for an ostentatious display of his erudition. This the present author neither desires to claim nor wishes to exhibit. There is no philosopher, particularly in this late age, who is not indebted to more predecessors than he would be able to name. This we know. But what we wish, and perhaps have the right, to know are the names of those predecessors to whom a philosopher *thinks* himself importantly indebted. For it is this information which provides the reader with a clue to his meaning and an instrument to assist in its evaluation.

The author would trace the genesis of the following essay to a reading in the year 1928 of Hume's *Treatise of Human Nature* (1739–40). The epistemology of Book I of that epochal work and the latent axiology of Books II and III have been continuously felt as a positive influence ever since. An equal debt of enlightenment is owed, through subsequent extensive and repeated readings, to Aristotle—whom perhaps it may not be extravagant to refer to as the profoundest intellect in the history of human thought. This many-sided man, whose writings are open to conflicting interpretations in their very subtlety, I have read in the spirit of naturalism, after the ancient precedent of Strato of Lampsacus and Alexander Aphrodisias, carefully eschewing the crust of dross laid over his pronouncements by the Scholastic tradition. Like all hedonists I must acknowledge the influence of the master of the tradition, Epicurus—despite his advocacy of what I believe to be a mistaken view of pleasure.

For a profound modification of my views in some of the farthest reaches of value theory, I must record my obligation to that noble doctrine of the East, Buddhism—the most truly philosophical of religions.

Coming to modern times—and save for Hume I have found very little of real worth for a hedonistic axiology between the ancient

and modern (including specifically in this judgment Hobbes, Bentham, and Mill)—I should like particularly to mention Leslie Stephen, *The Science of Ethics* (1882), containing as generally unexceptionable a statement of the hedonistic doctrine as I know of, George Santayana, *The Sense of Beauty* (1896), W. S. Jevons, *Theory of Political Economy* (1911), and Moritz Schlick, *Fragen der Ethik* (1930)—the latter three exhibiting perhaps the most successful applications of hedonistic or quasi-hedonistic axiologies to the fields, respectively, of aesthetics, economics, and ethics. Of the three I have been most particularly influenced by Santayana.

On more specific points I am indebted to George Boas, *A Primer for Critics* (1937), for some of the vocabulary employed in this essay, especially *terminal value* as a substitute for *intrinsic value* (which is objectionable in its metaphysical connotations), and to G. A. Lundberg, *Foundations of Sociology* (1939), for a convincing argument that the important term *organism* may properly be used to designate societies, states, species, etc., as well as so-called individuals. This latter, indeed, is one of the comparatively few points on which the author's system of axiological beliefs has been radically altered during the twenty-one year period of their gestation.

As the pages of this essay are concerned even more with psychological problems than with those traditionally considered philosophical, it may be well to state the works of psychology by which I have been most helped and stimulated. They are, I believe, four: William James, *Principles of Psychology* (1890), R. S. Woodworth, *Dynamic Psychology* (1918), J. B. Watson, *Behaviorism* (1925), and D. Fryer and E. R. Henry, *An Outline of General Psychology* (1937), the former three being, of course, landmarks in the history of the science, the latter an excellent compendium. In particular I am indebted to Professor F. S. Keller of the Department of Psychology, Columbia University, for suggesting the alternate mode of discriminating "voluntary" and reflex behavior which appears on page 22.

Negatively, from the point of view of criticism of hedonism, I have learned most from Plato, my earliest preceptor in the art of philosophy. In the positive aspect I am inclined regretfully to believe that no other individual has had on philosophical thinking

so extensively pernicious an influence as this son of Ariston and Perictione, but in the negative aspect, thanks to the clarity and the searching character of the questions he raises, no individual has perhaps been equally inspiring and hence beneficent. There is more than one path to greatness. Among the moderns I have found the objections to hedonism most fairly and forcibly stated in four members of the British school: W. E. H. Lecky, *History of European Morals* (1877), Henry Sidgwick, *The Methods of Ethics* (1901), G. E. Moore, *Principia Ethica* (1903), and Hastings Rashdall, *The Theory of Good and Evil* (1907).

Last, but I doubt least, I must name a monumental work which has come into my hands during the writing of this essay and which appears upon cursory inspection to be of first-rank importance—C. I. Lewis, *An Analysis of Knowledge and Valuation* (1946). Indeed I conceive it to anticipate and agree so closely in several important respects with the axiological doctrine advocated in the present essay that, though flattered thereby, I have purposely deferred the study it deserves lest I should find myself being unduly influenced. If therefore the reader of both should discern a similarity of outlook or even perhaps of expression, I beg that he will give all the credit to Professor Lewis but attribute the fact to common participation in that grand tide of naturalism which, beneath a surface agitated by winds of supernaturalism, obscurantism, and sheer confusion, is assuredly sweeping on to determine the future coastline of human thought.

I cannot fittingly put a period to a portion of my work printed below the word *Acknowledgments* without recording the names (with no implication of responsibility for any of the doctrines which follow) of these especially of my former teachers and present friends—Professors James Gutmann and Ernest Nagel of Columbia University and Dean William R. Dennes and Professor Stephen C. Pepper of the University of California. Two other of my former teachers, whom I should be honored to refer to as present friends, are to philosophy's loss no longer among the living—DeWitt H. Parker, late of Michigan, and David W. Prall, late of California and Harvard.

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University of Western Ontario
London, Canada
23 November 1949

NOTE TO THE READER

CERTAIN SECTIONS OF THIS WORK are concerned with derivative details of the subject, which find a place in the text in order that a definitive exposition may be provided of the critical conceptions involved. The reader not primarily interested in technical matters may omit such sections without thereby hindering to any important extent his grasp of the main threads of the argument. The passages referred to will be marked by footnotes.

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THE FORMS OF VALUE

Introduction

THAT A DISTINGUISHING CHARACTERISTIC of the present stage in the development of history is its pervasive and acute conflict of values is a fact to which almost all thinkers agree and almost all contemporary social events attest. In so far as the concept of *value* enters into every human act and decision, and in so far as disagreement on values ultimately endangers the continuance of civilization, the resolution, or at least the clarification, of this conflict may claim to be the most momentous task of our time.

The problem is divided naturally into two parts: what means to employ to achieve the values of human living, and what is the nature of these values and of value in general. The former is the problem of the legislator, the moralist, the scientist, and of every man in the pursuit of his private concerns; the latter is the problem of the philosopher. It is evident that little can be accomplished toward a practicable solution of the first part of the problem in default of substantial agreement upon a solution to the second—and that a solution not agreed to merely, but which is stable enough to withstand with only comparatively slow modifications the irrepressible critical spirit of the human intellect. Serious deliberation upon and construction of the means to reach a goal is futile and frustrating if the location and even the nature of the goal is unknown or if there is insufficient agreement upon these things to overcome the constant of social inertia, or if the goal is continually changing in direction. The frustration in these respects of the present is possibly greater than that of any other age since the declining centuries of ancient civilization.

Now to the philosophical part of this problem there is no deficiency in the number of proffered solutions. It is unfortunate, however, that these solutions are divided generally into two extremes which have almost nothing in common but their irrationality, in consequence of which they are, in the author's opinion, almost equally false philosophically, obscurant intellectually, and dangerous socially.

The one extreme comprises the absolutists of all descriptions—whether philosophical like the Platonists and Hegelians, theological like Calvinist or Catholic Christianity or Wahabi Mohammedanism, or social and political like Soviet Communism. The absolutists in axiology have in common a belief in fixed, unchanging, externally grounded values, which are revealed to man either by blind faith or by some form of pseudo-science, and with regard to which man's function is to conform without serious question. The tendency of all of them is toward a dogmatism which represses freedom of inquiry under the pretext that the fundamental truths respecting human values are known or knowable with certainty before methodical inquiry starts.

The other extreme comprises those—represented in philosophy mainly by the more irresponsible of the ancient Sophists, by certain Pyrrhonists of every age, and by the contemporary movement of Logical Positivism or Scientific Empiricism—whose motto appears to be *de gustibus non disputandum est* or some variant thereof. These, that is to say, are the doctrines which in one form or another deny the possibility of any scientific treatment of questions involving value and in effect dismiss it from the realm of reason into that of the irrational. Their charge is usually that value judgments are not logically judgments at all, but mere expressions of emotion and, as such, not amenable to the operations of science. The factors which had led a number of contemporary and highly sophisticated philosophers—the heirs of the intellectual effort of two thousand years—to foster such a curious illusion are not altogether apparent. The following, however, may be suggested as more or less pertinent: a relative laziness in facing up to the complex problems of value, induced in part by an energetic preoccupation, especially during the last one hundred years, with the simpler problems of physical science; an impetuous, iconoclastic reaction from the dogmatic formulations of absolutistic value theories, which have exhibited an accelerating crescendo of inadequacy since the time at least of the scientific revolution in the seventeenth century; sheer insufficiency of analysis of the basic data given in value phenomena.

(The reader is requested not to construe this unfavorable reference to Scientific Empiricism or Logical Positivism as an attack on the whole school. For one thing, not all members of the school have

agreed with its tendency to deny the possibility of rational valuation. For another, even those members who have been most prominent in the assertion of such views have not shown themselves constant in or irrevocably committed to their quondam position; in fact, tendencies toward a moderation of the earlier and more thoroughgoing attitude of rejection have lately come into evidence. The school is mentioned, not with any purposes of historical criticism in mind, but merely by way of illustration of an extreme. Saving for the negative view of empirical valuational procedures which, rightly or wrongly, has very generally appeared as a conspicuous aspect of its ideology, there is in fact no contemporary group with which the writer has more sympathy. It is, indeed, one of the main objects of the present essay to assert the propriety and feasibility of bringing valuational procedures themselves within the scope of the "unity of science" ideal. Such inclusion would *ipso facto* eliminate all occasion for the strictures suggested above.)

As has been implied, it would be difficult to determine which of these two extremes of axiological irrationalism—the one holding that values are by their intrinsic whimsical nature beyond the bounds of rational investigation; the other that rational investigation is to be forefended as irrelevant, if not impious, by the fact that values are eternally established and immutably given—it would be difficult to determine which is the more dangerous socially and intellectually. The absolutistic extreme has in one form or another been in control of human affairs throughout all recorded times and is today in control of at least the popular mind. The results are apparent in history; it has retarded science and social melioration, preserved the *mores* and beliefs of primitive ages, fostered infantilism, apotheosized superstition in the guise of faith, inculcated an insolent assurance in the opinions, divine or secular, in which the individual happened to be nurtured, and encouraged irrational, emotional conduct, with its inevitable train of folly, intolerance, and cruelty.

But there is no reason to suppose that the alternative extreme would have any better results—with its acquiescence in singularism, its invitation to prejudice, and its denial of the applicability of the most powerful instrument of environmental control yet constructed by man to the very field where its application is most urgently

needed. The one extreme in theory of value is as irresponsible as the other is repressive.

The system adumbrated in the following pages aims to achieve an Aristotelian mean between the two. It will be affirmed against the one that value, value propositions, and value judgments are matters of fact, having the same metaphysical, logical, and epistemological status as any other matters of fact, and that, as such, they are open to scientific investigation and control. Against the other it will be affirmed that neither value nor the avenues to value are externally established or prescribed, but that they are relative to the natures of man and the other organisms, to their needs, their desires, and their purposes.

The basis of the present system is hedonism. More particularly it is egoistic psychological hedonism. That is, as against so-called ethical hedonism, which contends that men *ought* to pursue pleasure as the sole or chief end although perhaps they *do* not, psychological hedonism maintains it to be a given fact of human (and for that matter of all organic) behavior that pleasure *is* the sole end pursued; as against universalistic or altruistic hedonism, as for instance in most forms of utilitarianism, which asserts that it is primarily the pleasure of others which may and ought to be the end of conduct, egoistic (but not egotistic) hedonism holds that each organism does and can act only to the end of its own pleasure.

Hedonism in this, which may be called its purest form, has not often been advocated in the history of thought and, when it has, the exposition has been so clumsy in expression and unsophisticated in analysis that obvious openings have been left for specious rebuttal. A great mass of criticism also is applicable only to so-called ethical hedonism. Furthermore, although seldom defended by philosophers, hedonism in some vague and unsystematic form has in all historical times guided the bulk of common sense conduct. Men, that is, in the great majority of instances have acted and do act as hedonists, whatever may be their theoretical beliefs in moments of reflexion; men do choose and seek that alternative which most pleases, whether in whim or deliberation. This aspect of common sense—this native hedonism—like all other aspects of common sense has been the object of philosophical criticism. In judging the following pages, then, the reader is requested to discriminate on the

one hand between traditional objections to crudely expressed psychological hedonism, ethical hedonism however expressed, and common sense hedonism (often egotistic), and on the other hand the specific and peculiar, and possibly unique, version of psychological hedonism here adopted. It will be found that many of the traditional, even venerable, criticisms of hedonism which for centuries have been handed down by historians of philosophy and upon which generations of opponents have relied to exorcise the specter, are simply not applicable—they are irrelevant.

For example, it has been said, in countless forms, that pleasure cannot be the sole end of conduct because as a matter of fact men sometimes seek, welcome, or tolerate pain. The fact is true, but the objection is irrelevant, for it assumes that pain and unpleasantness are the same thing, which assuredly is not the case and forms no part of the present system. Or again it is pointed out that pleasure cannot be the end of all conduct because men are seldom if ever conscious of pursuing it; what all men are conscious of pursuing are the myriad concrete goals of actual life—wealth, health, wisdom, food, shelter, friendship, and so on. Again the fact is true but the objection irrelevant. What men are *conscious* of, what they have in attention or awareness, has nothing to do with the case; as every court of law knows, men's ends are to be determined from their behavior, not by what allegedly they did or did not have "in mind" just prior to acting. Indeed, as modern psychology agrees, most conduct is unconsciously motivated (life would be impossibly deliberate were it otherwise). No argument against hedonism then can be drawn from the alleged contents of consciousness. (Most of the classic objections have been so drawn, however, and it is precisely this, issuing in a thousand forms, that makes the reading of large portions of the classic treatises on ethics so stale and unprofitable.)

The purpose of this essay, however, is neither to expound nor to defend a theory of hedonism. The author hopes to accomplish that task upon a future occasion—the exposition being difficult, the defense, at least against traditional objections, easy. The purpose of this essay is, taking a hedonistic theory of value as an hypothesis, to exhibit in outline its explanatory and unifying powers within and among the several intellectual disciplines having an axiological

foundation. The ultimate practical object aimed at in the following investigation is to suggest the desirability, propose the instrument, and provide the means for removing all the disciplines based on the conception of *value*—especially aesthetics and ethics—from the jurisdiction of philosophy as traditionally conceived and for placing them under experimental science.

Accordingly we shall commence with a statement of the doctrines of hedonism upon which this work rests by way of hypothesis. Since it is not intended at this time to offer the detailed evidence which provides the support for hedonism as a theory of value nor to defend it against traditional or contemporary objections, the statement will be limited essentially to a series of postulates and definitions. If once or twice a traditional criticism is mentioned and an answer suggested, it will be principally to clarify the meaning of a definition or a postulate.

Following the definitions and postulates of hedonism, the body of the work will be devoted to an analysis of *value* and an exhibition of the main forms which it assumes. The clarified concept of *value* will then be applied to the elucidation of the key concepts of ethics, first and in some detail of *ought* and *good* as the central terms and then of a number of important secondary terms. Thirdly, and in somewhat less detail, the hedonistic analysis of *value* will be used to explicate the nature of *beauty* as the central term in aesthetics, *utility* in economics, and *truth* in epistemology. Inwoven with the main thread of the argument will be found a considerable amount of illustrative and applicatory material which it is hoped will, in default of a lengthy and minute exposition of the subjects under discussion, prove at least suggestive to the alert reader of some new insights and perhaps provide a stimulus to future investigation on the part of scholars more competent than the present author to carry out the hard labor of detailed investigation.

It may appear a somewhat reverse proceeding to exhibit first the applications of a particular form of hedonism and to reserve until a future time its proof and defense. There is, however, this much justification in such an approach: the proof of any theory lies largely in its explanatory power, and in the course of exhibiting its applications a number of proposed objections will be seen to be mistaken or even irrelevant. Furthermore, as we shall have occasion

to consider later, the "truth" of a set of postulates consists, perhaps, just in its simplicity, internal consistency, and explanatory utility. If these characteristics can plausibly be ascribed to egoistic psychological hedonism, perhaps then the theory of value which follows from its postulates has received about all the proof it is capable of and about all the defense it requires.

Chapter 1

POSTULATES AND DEFINITIONS IN HEDONISM

Postulate 1. There are two types of organic behavior: (a) that determined by stimuli which operate through the nervous system (or whatever in the lower organisms is the rudimentary equivalent) and (b) that determined by stimuli which operate without the nervous system.

Comment. The two types may be illustrated by considering a blast of wind as a stimulus. Let us say that on a particular occasion it blows a man off his feet and also induces him to take shelter in a building. The former response is an example of the second type of behavior, the latter of the first. In axiology we are concerned solely with the first type, that which results from stimuli operating through the nervous system; the second type of organic behavior is identical with certain classes of inorganic behavior and is the subject of the sciences of physics and chemistry and their derivatives.

Definition. A *stimulus* is any change in the environment which is capable of determining behavior by an organism.

Comment. Every stimulus is thus relative to an organism. The contents of the *Divina Commedia* when read or heard are a stimulus (or rather a complex set of stimuli) for a human organism; they are no stimulus to an earthworm. It is possible that there are phenomena existent in the environment which are not stimuli for the human organism.

Definition. A *response* is any convenient unit of physiological behavior by an organism determined by a stimulus.

Comment. Like organism-environment (see below), the stimulus-response dichotomy is an arbitrary one, dictated and applied by scientific convenience. It is an intellectual instrument which serves man's scientific purposes, that is, aids in satisfying certain types of stimuli. Further, any response when actualized becomes immedi-

ately another stimulus. A child's response to some stimulus may be to cry, but the sound and muscular feeling of himself crying becomes a second stimulus, with perhaps a second response of bawling, and an ensuing third response of tantrums. A similar sequence is illustrated among adults in several well-known forms of pathological hypochondria. Such sequences are terminated or diverted by fatigue or by the intervention of some more powerful external stimulus.

Definition. The *environment* is the universe less the organism.

Comment. Every environment is thus relative to an organism and organisms are themselves part of the environment of other organisms. Furthermore, the line of demarcation between any organism and its environment is vague. This fact makes the preceding definition only roughly useful. A man's hand is part of his organism when struck by a hammer in his environment; but the pain thus generated becomes a stimulus, itself in the environment, determining an organic response. It is sometimes useful to distinguish between an internal and an external environment. Metaphysically and epistemologically the distinction must probably be arbitrary, vague, and fluid; this is particularly true in defining what is external and what internal environment in the case of a societal organism. Roughly speaking, however, the internal environment in the case of individuals is the locus of all stimuli which are constituted by changes occurring on or within the spatial region delimited by an organism's epidermis; the external environment, the locus of all stimuli which are constituted by changes occurring beyond the spatial region so delimited. A similar definition might be devised for applying the distinction to cell organisms. In the case of societal organisms—which certainly are not provided with a collective epidermis—a much more laborious effort would be required to distinguish usefully between the external and internal environments, however easy the distinction may be in common speech: the Abbasid Caliphate, after enduring for 508 years, was dissolved through *internal* dissension and debility and through *external* pressure applied by Hulagu and his Tartar hordes. Such a definition, however, is properly a task for scientific sociology. As the distinction in question plays no essential part in what follows in this work, we need not pursue the matter further at this time.

Definition. An *organism* is a relatively stable and coherent set of events which responds in certain ways to certain types of environmental changes.

Comment. The reader will realize that the preceding definition is tenuous and tentative. The several components are as much in need of definition as is the definition itself; to specify precisely what is meant by "events," "set," "stability," and "coherence" would require a separate monograph, if not a treatise—and that not in the field of axiology, but of logic or metaphysics. Obviously the argument of the present inquiry cannot be diverted into an undertaking of this nature. Nor ought we on the present occasion to make an excursus into the fields of biology, psychology, and sociology with a view to seeking an exact account of just *what* responses to just *what* environmental changes shall be considered definitory of the concept *organism*. The latter question is primarily a problem for these three sciences, since the concept is basically a tool for the achievement of truth in the factual areas with which they are particularly concerned.

The usefulness and discriminatory power of the preceding definition for our present purposes is twofold: (1) It indicates that the author's approach to questions presuming the concept of *organism* (and axiological questions are necessarily such) is definitely naturalistic and behavioral, as opposed to absolutistic, vitalistic, or supernaturalistic. (2) Although not radically defining *organism,* the above proposition implies the author's belief that a radical definition is to be unfolded in the answers to the following six questions:

(a) What is a spatio-temporal *event?* How shall it be defined?

(b) How shall *set* of events be defined?

(c) What degree of *stability* shall be considered definitory of *organism?* (No organism changes totally from moment to moment; no organism remains identical from moment to moment. How shall the limits of similarity be marked off?)

(d) What degree of *coherence* shall be considered definitory of *organism?* (Every organism—especially the larger, societal organisms—has a penumbra of units which may or may not be taken as integral parts of the whole. Where shall the limits of intrarelatedness be placed?)

(e) What behavioral responses shall be considered *organic* and

what not? (For instance, the solving of a mathematical problem—by a human "organism" or by an electronic "organism"; or the opening of a door at the approach of a pedestrian—by a doorman or by a photo-electric mechanism.)

(f) To what types of stimuli shall response or non-response be considered a distinguishing characteristic between *organisms* and *non-organisms?* (Neither stones nor the majority of human beings respond to the meaning of Virgil's *Georgics* read in Latin—shall that fact discriminate organically between them and other human beings who do respond?)

As we have said, however, the answers to these not easy questions need not be our present concern. What we are concerned to point out is that, since the definition of *organism* depends on these six main subsidiary questions and since the answers to at least the last five (if not all six) are not given in experience but are necessarily constructs, the concept of *organism* is itself arbitrary and a matter not of "nature" but of "convention." The fact is illustrated by the notorious uncertainty, irresoluble by bare observation—and certainly by any form of intuition—as to the line of demarcation in biology between behavior which is to be called organic on the one hand and inorganic on the other. That the concept is a construct has important implications in the direction of a hylozoistic metaphysical view and with regard to the conception of *truth* which is developed in Chapter 5 below.

It is important to note that the definition permits the inclusion in the class *organism* of societies, states, communities, colonies, species, and so on. Indeed the organisms with which axiology is most concerned are relatively stable and coherent sets of less complex organisms, as in the human organism, the cells; in societies or states, human organisms.

Postulate 2. Of all alternatives present to an organism, that response to a stimulus or stimuli received through the receptors occurs which, at the moment of inception, is associated with the greatest pleasantness (or, what comes to the same thing, the least unpleasantness).

Comment. Because of a certain inertia in organic behavior, a bare preponderance of pleasantness (or deficiency of unpleasantness) does not suffice to determine overt behavior; there must be

more than a certain degree, dependent in part on the character of the organism, of preponderance or deficiency. If less than this degree of difference obtains between the affectivities associated with two or more responses, or especially if the alternative responses are all sensibly indifferent, we have the case of Buridan's ass—*pro tempore* no overt response will be made.

Definition. At the moment of inception means that the organism can be directly influenced only by present affectivity, not by that which occurred in the past or is likely to occur in the future.

Comment. Past or future affectivity is of influence on conduct only in so far as its memory or anticipation modifies present affectivity. The present in question is the specious, not the mathematical present.

Definition. Affectivity (or *hedonic tone*) is a class of which the sole members are *pleasantness, indifference,* and *unpleasantness.* (For each of these terms may be substituted, respectively, *positive affectivity, neutral* or *indifference affectivity,* and *negative affectivity.*)

Comment. Affectivity is contrasted with and distinguished from *sensitivity.*

Definition. Pleasantness or *positive affectivity* denotes that quality attaching to experienced events in virtue of which they are reacted to as pleasant. (The definitions of *indifference* and *unpleasantness* would be analogous.)

Comment. As these qualities are elements of experience, the concept of *pleasantness* is not further definable except ostensively or by periphrasis. Thus, ostensively, *pleasantness* is *that which* for certain individuals is common to the experiencing of (a) a moderately hot bath, (b) a glass of Château Yquem of a good vintage year, (c) the performance of a courteous act, (d) the winning of a game of chess, (e) dancing the schottisch, (f) scattered clouds in a summer sky, (g) the accomplishment of the rites of love, (h) the period immediately following the cessation of a toothache, (i) the acquisition of abstract knowledge, (j) the sympathetic perception of the evidences of another's pleasantness, (k) attaining the goal of a journey, (l) savoring of the wit of a Martial epigram, and so on and so forth, to any number of instances necessary to exclude all but the common quality in question. It is by ostensive conditioning of this kind that

the meaning of the word is actually learned by the individual in the first place.

Another way of arriving at a definition, although it involves a measure of circularity, is to adopt as categories expressive of an organism's most fundamental relations toward the data of experience, "being for," "being against," and "being neither for nor against," and to say that *pleasantness* is the quality which is predicable of all of the experiential denotata of the first category, *unpleasantness* of the second, and *indifference* of the third.

It may be thought—indeed, similar strictures have been lodged against past systems of hedonism—that the basic postulate (*Postulate 2* above) of necessity embodies just such a circularity of argument, which in this instance, admittedly, would be vitiatory. The allegation may be baldly stated in some such terms as these: (1) every organism chooses that alternative which it finds pleasantest. But how can this proposition be objectively verified, that is, how can it be verified that on a particular occasion the organism's choice *was* the pleasantest of the alternatives? Why, because (2) any choice is inferred to be pleasantest to an organism by the observed fact that the organism chooses it. It is alleged, furthermore, that this patent circularity is inherent not only in any attempted *proof* of the postulate (taking it as an hypothesis), but in its very *meaning:* merely as a proposition it reduces to, "That response occurs which is observed to occur," or, "That choice is made which is seen to be chosen."

We may commence the rebuttal of this allegation by an admission which will help to clear the field of all save the central issue: in any single instance, where the whole of the observed data would consist in the overt act of choice, there could be no basis for a meaningful assertion that that choice was "pleasantest." I observe a cat, actuated by hunger, to choose a piece of meat and to reject a stone. If I assert, solely on the basis of his observed act of choice, that for this cat the meat was the "pleasanter" alternative, I have of course committed a fallacy of circularity. So much may be granted.

But now, taking (as is necessary) this cat's behavior to be an instance falling within the denotation of the universal expressed by *Postulate 2,* is it simply on the basis of this datum (or of similar data exemplified in the behavior of a countless number of cats) that I

assert that the alternative chosen was the pleasantest? By no means. The assertion—generalized in the postulate—is the result of an inference resting on data of a significantly different sort. These data, furthermore, permit of the logical condition required if circularity in the postulate is to be avoided: that the predication of "choice" or "occurrence" should be logically distinct from the predication of "pleasantest."

The data in question are those given directly in my—the author's —experience. (Under the stimulation of appropriate linguistic symbols, it is hoped that similar data may be given in the experience of the reader.) Thus not only a cat, but I too under the drive of hunger choose the meat and reject the stone. But in my own experience do I infer and assert that the meat was the pleasanter alternative *because* I observed myself to choose it? Certainly not; if I attend to the matter, I apprehend immediately that the meat was associated with greater pleasantness, quite apart from the act of choice. Psychologically speaking, were the meat always chosen and the stone always rejected, perhaps I should never be led to separate "greater pleasantness" and "choice." But as a matter of fact I sometimes find myself (as when attacked by a vicious dog) choosing the stone and rejecting the meat. I then apprehend, upon reflexion, that in this case it was the stone which was associated with greater pleasantness, *videlicet* the pleasantness evoked by the hope that the stone rather than the meat would serve as an instrument to ward off imminent danger.

Thus I am able in my own experience to perceive that the predicates "being chosen" and "being pleasantest" are logically distinct. This can in fact be perceived directly in that I may in various circumstances feel one alternative object to be pleasantest without actually choosing any. But I do notice that whenever I *have* chosen any alternative, at the moment of inception it appeared pleasantest to me among all its competitors. Paradoxically this fact comes most particularly to my attention when I subsequently discover that I have chosen wrongly, that is, chosen an alternative which, though it was felt as pleasantest at the moment of decision, turns out in the end to entail unpleasant consequences. Finding no exception to this rule, I generalize and say, "On every occasion of choice, if I choose an alternative then that alternative is associated with great-

est pleasantness." Logically, this generalization expresses the necessary condition of choice-behavior on my part; for the converse is, if an alternative is not felt as pleasantest, then it is not chosen. (Note that it is not asserted that greatest pleasantness is the sufficient condition to choice—if an alternative is felt as pleasantest, then it is chosen. For that would be untrue; as I have just remarked, I can find an alternative pleasantest and yet not choose it.) Now in all this there is nothing of circularity, for the characters of being pleasantest and being chosen are neither of them derived from the other but are independent and are established in the generalization on the basis of inferences grounded on absolutely distinct perceptual data.

But if there is no circularity in this proposition concerning my own response behavior and its relation to affectivity, then there is none in the general proposition expressed in *Postulate 2*, since the latter is but an induction, based on analogy, from the former. For finding that greater pleasantness is a necessary condition to my choosing the meat instead of the stone, and noting on a thousand occasions that cats behave in a manner analogous to myself (in particular as regards stones and meat), I infer that for cats, too, felt pleasantness is a necessary condition to choice. Still more am I impelled to make the inference in the case of fellow humans, between whose behavior and my own I note continual and daily analogies in overwhelming number. Having extended my generalization to cover cats and men, I find many positive reasons for, and almost no negative reasons against, its extension to all animals—and if to all animals, to all plants—and if to all plants and animals, to all organisms. The end result of this analogical extension is the most general form of the proposition, expressed in *Postulate 2*.

Should the reader feel that thus to extend an analogy, based primarily only on my private experience, to cover the whole of organic creation under one postulate is a proceeding of questionable tenuousness, it may be appropriate to remind him that a large number of beliefs which would be regarded as most indubitable are based on a methodologically identical analogical inference. Who doubts, for instance, that at least for all human beings to be burned by fire is painful? Yet the believer in this generalization has not an iota of direct evidence to go on, for he never can observe, much less feel, another's pain. This universal belief is grounded upon three

observed facts, many times repeated: the behavior of other individuals is very like that of the believing individual; in particular, the peculiar behavior of a burned individual is very like that of the believing individual when he himself is burned; when the believing individual is burned, he feels pain, intensely and invariably. Therefore, when other individuals are burned they feel pain. But how does this conclusion follow? Obviously only by an analogical induction from each individual's perceptual experience. Pragmatically speaking, is the conclusion any the less reliable because it rests on such a one-to-many inference?

If I were concerned to support the proposition expressed in *Postulate 2* as an *hypothesis*—and I repeat that it is not the purpose of the present work to argue for hedonism as a theory—a great mass of evidence could be adduced other than the far-extended analogy suggested by the choice of the meat and the rejection of the stone. Thus in the case of other human beings the asserted connexion of choice and pleasantness can be supported by independent analogical inferences from their observed verbal behavior. Further corroboration may appear incidentally in the following pages. But the aim of this part of our discussion has been simply to present evidence sufficient to refute the charge that the postulate in question is inherently circular in its signification. This I believe has now been done.

To return to the subject of affectivity. Positive and negative affectivity are subject to degree; indifference is not. The latter means the sensibly indifferent, not the absolutely indifferent—indifferent within the inertia limits of the organism's affective mechanisms. The greater the reaction delicacy of the organism's affective mechanisms, the less the range of indifference.

Any number of affective experiences may be ordered dimensionally on a scale extending from an extreme of unpleasantness on one end, through an indefinitely extended region of indifference, to an extreme of pleasantness on the opposite and contrary end. With respect to the affectivities associated with any two or more experiences, *greatest pleasantness* and *least unpleasantness* are equivalent expressions.

Pleasantness, unpleasantness, and indifference, though absolute

in their occurrence as affectivities, when applied adjectivally to an object or event are relative to an organism. Thus the first of our examples, the hot bath, though pleasant to a human being, may be unpleasant to a polar bear and indifferent to certain bacteria. As so often where the verb *to be* is involved, linguistic usage in this functions deceptively; "a hot bath *is* pleasant" usually means in reality, "if in certain circumstances a human being takes a hot bath, he will probably experience concomitant pleasantness." Considered apart from its possible relations to an organism, affectivity is not predicable of "a hot bath"; affectivity is only and always predicable of "the experiencing of a hot bath by an organism."

The following are other errors to be avoided in the use of these terms:

(1) *Pleasantness* is not to be equated with pleasure if by the latter is meant the class of "bodily pleasures"—presumably those associated directly with the simpler sense perceptions. This is a vulgar error and one not to be expected of the audience to whom this essay is addressed. But since the historical connotations of *pleasure* predispose to misunderstanding, the term is eschewed in, I trust, all critical passages in the discussion. Where it is used—usually because of being less cumbrous than *pleasantness*—it is to be understood in the defined sense.

(2) *Unpleasantness* is not the same as *pain*. The latter is a sensitivity, it is correlated with the excitation of specific receptors in the nervous system; the former is an affectivity. (No physiological correlates to affectivity have as yet been found, or at least agreed upon. It is not to be doubted, however, that such correlates exist; very possibly they will be found, as J. B. Watson suggests, somewhere in the intricate ramifications of the sexual structure. Until they are discovered, the most direct avenue of observational confirmation of affective occurrences is closed to us and we are forced to employ indirect inferences based on gross behavior—for example, verbal behavior such as "I find this pleasant," muscular behavior such as smiling, glandular behavior such as exuding teardrops, spatial behavior such as a paramecium swimming away from an infusion of acetic acid, and so on.)

(3) *Unpleasantness,* though usually, is not necessarily associated

with *pain*. Mild pains are often indifferent and sometimes pleasant. (The recognition of this fact is alone sufficient to dispose of most or all of the so-called "problem of tragedy" in aesthetics.)

(4) *Unpleasantness* is the opposite of *pleasantness* (or *pleasure*). *Pain* is not the opposite of anything; though it is subject to degree, instances of it cannot be placed in a graded series running through a neutral point into a contrary series graded in reverse order. To speak of "pleasure and pain" as opposites is therefore an egregious error. It is in fact the commonest and most venerable error associated with hedonism, both by its advocates and by its opponents. No inquirer into axiological truth can hope for an understanding of hedonism or the theory of value which follows from its postulates who does not make this fact clear to himself.

(5) The term *pleasure* (or *pleasantness*) has been objected to as being required to designate too many different types of experience, some so different, it is said, as to be substantially incompatible. This objection rests mainly on confusing the quality of *pleasantness* with the *ways in which* pleasantness is experienced. It may be attained to in countless ways, to be sure, but the *thing* attained is the same, save in degree. As we shall see presently, this confusion is fostered by calling hot baths, wines, string quartets, and friendship, alike, the "pleasures" of life or the "ends" of conduct. These things are instead *means to* pleasure.

If it be said that, for instance, the hot bath and the string quartet have no quality in common, there appears no objective way of refuting this opinion save by demonstrating that organisms behave in several respects in the same manner toward both: they are both enjoyed (hence they have "enjoyableness" in common at least); they terminate behavior sequences; they remove driving stimuli; they are on appropriate occasions sought for and not avoided; their experience is accompanied by facial, muscular, and vocal behavior which is substantially identical. A decisive refutation, however, must probably wait upon the discovery of observable physiological correlates to each type of experience. Even then, of course, each occurrence of affectivity will be directly experienced only by one organism; to all other organisms the occurrence must be a matter of inference. A physiological correlation will simply provide a more direct mode of inference than any now available. Ultimately all

inferences of affectivity must be grounded in empathic analogy with the inferring organism's own immediate experience.

(6) Affectivity is not to be construed as necessarily *conscious* experience. Consciousness, indeed, has nothing to do with the value theory here being expounded, which for the most part is grounded in behavioral conceptions. Consciousness is merely the cream on the milk of experience and is not to be taken as characteristic of the whole. Most of experience, in fact, occurs below the level of consciousness and no rational account of organic behavior, in its axiological aspects or otherwise, would be possible if consciousness is taken to be a necessary condition. All objections to hedonism, therefore, which are based on what allegedly is or is not in the organism's "consciousness" are irrelevant. If a person listening to a string quartet behaves in a manner from which enjoyment may be inferred, we shall say that he or she is enjoying the music, that is, experiencing pleasantness in the event, regardless of whether or not he or she is conscious of pleasantness. To postulate affectivity solely of those event complexes in which direct consciousness of affectivity is present would be to fall into some of the most hopeless errors of subjective idealism and to render nugatory at the outset any attempt at a consistent theory of value open to the application of scientific method.

Definition (with reference once more to *Postulate 2*). Alternative responses are *present to* an organism when there intervenes between the action of the stimulus on the receptors and the response action of the effectors an integrative pause of any duration at any level of the higher nerve centers.

Comment. (a) This definition is in no way intended to contravene the principle of determinism as applicable to organic, equally as to all other behavior. (b) The definition *is* intended to demarcate simple reflex behavior, tropisms, and so on, from behavior which issues from "problematic situations"—behavior which is "deliberate," "considered," "intentional," "calculated," "voluntary" (all terms which have objectionable traditional connotations). (c) The definition is vague. It must be, since there is some degree of integration even in the simplest reflex (indeed, integration is one of the distinguishing characteristics of the two types of organic behavior specified in *Postulate 1*), the limits of the "higher nerve centers"

are themselves vague, and a pause or interval must intervene between any stimulus and any reaction (the much-investigated "reaction time"). The definition is therefore offered simply for its general convenience.

Considering the above definition as a means for discriminating between "voluntary" and reflex behavior it may, however, be objected—and justly—that in a number of instances a behavior sequence which clearly is reflex may embody a longer integrative pause than that in a behavior sequence which is just as clearly "voluntary." For example, for certain individuals the reaction time in the patellar reflex may exceed the time required to reach a "decision" in some types of "voluntary" response. Nor is it always possible to consider the integrative pauses in slow reflex reactions as operating wholly eccentric to the region of the higher nerve centers.

An alternate, and purely behavioral, definition may therefore be suggested: alternative responses may be judged *not present to* an organism when there exists a certain high degree of probability that a specific response will follow a type stimulus; alternative responses may be judged *present to* an organism when there exists a certain lower degree of probability that a specific response will follow a type stimulus. The former is reflex, the latter "voluntary" behavior. The degrees of probability involved are arbitrary and are to be determined on pragmatic grounds.

While this alternate mode of discrimination is doubtless more precise and unexceptionable, it is likewise less easy of application in the practical extension of a hedonistic axiology. In the great majority of instances the former definition will serve its purpose. When an organism hesitates between a stimulus and a relevant response, we are inclined—and the longer it hesitates the more we are inclined—to call the resulting conduct "deliberate" or "voluntary" and to judge it as having issued from a situation which was problematic in the copresence of alternatives. (As we shall see later, it is this form of behavior exclusively with which morality is concerned. Though the distinction is for this and for other reasons a needful one, it should be repeated by way of emphasis that "voluntary" behavior is not to be distinguished from "involuntary" on any considerations of determinism; each is equally as determined

by antecedents as is any occurrence whatsoever which can be the subject of scientific knowledge.)

It is evident that in all situations where alternative responses are present there must at least be present the negative of any response. Thus the simplest alternative situation possible is one in which the alternatives are a particular response and its negative. This is not commonly recognized in popular speech. We say, "I had no alternative but to answer the question." But there must at least have been the alternative of *not* answering. According to the postulate of hedonism the real meaning of the common statement must rather be, "Not answering appeared so overwhelmingly more unpleasant than answering that I did not hesitate a moment to answer. Indeed, I did not even stop to think about it." (As is well known in psychology, unpleasant responses are often or usually inhibited automatically below the level of consciousness.) Only in simple reflexes, tropisms, and the like can it be said, in conformity with the meanings here intended, that no alternatives were present to the organism. Of a person with normal reflexes it may truly be affirmed that he "had no alternative" to jerking his knee upward immediately following its being tapped by the doctor's ruler. By inference it may be affirmed that a member of the genus *Helianthus* "has no alternative" but to bend sunwards. Nevertheless, even this type of behavior is affectively determined, as will now be shown.

Postulate 3. Where no alternatives are present to an organism, the sole response has been conditioned by the past experience of the organism, the species, or the germ plasm in such a manner that it is, of all possible alternatives, that which would be associated with greatest pleasantness (or least unpleasantness) were all present to the organism.

Comment. If my hand accidentally touches a hot stove, I have no alternative but to snatch it away. This response is the most probable of being associated with pleasantness of all possible feasible responses, such as letting my hand merely continue to rest on the stove, starting in to read *The Origin of Species,* breaking forth into *Questa tomba oscura,* or sending for a stove mechanic to turn the heat off. (*Non-feasible* responses would be, for example, conveying myself magically into the next room, or simply inhibiting the burn by fiat.) So of the ram pursuing an ewe in the vernal season, the

famished lion leaping upon its prey, a somnolent cat turning to sleep, or the paramecium scuttling from the acetic acid. That in all these cases the natural response is in some sense pleasantest may be inferred from the organism's behavior if, under the respective stimuli, the natural response is forcibly inhibited and some other compelled—my hand held on the stove, the ram placed in sight of the ewe but detained from pursuit, the lion kept from meat by his cage, and so on.

The logical effect of this and the preceding postulate is to reduce a heterogeneous mass of things chosen (stimuli responded to, alternative responses actualized) to the homogeneous class of reactions associated with most pleasantness. Instead of trying to describe human or organic behavior in terms of endlessly diverse stimuli, with no apparent common factor which would provide the foundation for a theory of value, it has been postulated that there is one and only one common factor in all stimulus-response sequences: the effected response is that which is, by reason of the organism's peculiar character (based on individual and hereditary experience), pre-associated with greatest pleasantness among all feasible responses.

This logical implication is, however, neither tautological nor reductive (in a pejorative sense). It is not tautological because the new class of effected responses includes a new factor—affectivity—which was not the distinguishing element in the old, heterogeneous class. It is not reductive because it is not claimed that all behavior is the result of the same entity—namely, pleasantness—but only that it is the result of any number of diverse foretasted responses, each of which has necessarily only the common quality of seeming pleasantest among its fellows. (And, by the way, if an object seems or feels pleasantest, then it is so. For affectivity is a datum of experience about which it is impossible to be mistaken. Error is a category applicable only to inferences. I may well be mistaken in inferring, from past experience, that a cup of tea *will* be pleasanter than a cup of coffee an hour hence; but it is impossible that I should be mistaken in feeling more pleasantness *now* in the thought of drinking a cup of tea than in drinking a cup of coffee. But in either case, the tea is or is not pleasanter, not in itself, but *to me*.)

Postulate 4. The affectivity associated with alternative responses

is determined by the affectivity associated with the results of similar responses in the past experience of the organism or in the race experience.

Comment. I am asked a question. I reply because that response seems pleasanter than the alternative of not replying. Why does it seem more pleasant? Because in my past experience simply not replying to ordinary questions has resulted in a strained situation sharply infused with unpleasantness. Furthermore, of several possible replies, I make the one which I believe to express the truth. Why? Because in my past experience speaking the truth (except in certain types of cases) has resulted in greater pleasantness, both to myself directly and to myself as a consequence of pleasantness resulting to others. Unless, therefore, something in the particular situation induces me to *feel* pleasantness in the opposite behavior, I reply and reply truly.

I am hungry and I am offered without cost or obligation a cut of beefsteak or a cobblestone. There are, let us say, three alternative responses to this stimulus complex: to accept the steak, the stone, or neither. The present affectivity associated with each is the result of past experience with similar responses to similar situations. Naturally I respond by accepting the steak. (Now just such an example has been proposed as a refutation of psychological hedonism. It has been said that when I am hungry I do not want pleasure, I want a steak. But this observation, taken in its ordinary signification, is irrelevant if not uselessly ambiguous. True, a steak may be the object I "have in mind" when it is proffered and I am hungry; but what I "have in mind" is not the real question at issue. It is, *what determines my overt response to this stimulus situation?* The answer is (by *Postulate* 2) the superior pleasantness associated with the implicit response of eating the steak, as against the lesser pleasantness or the unpleasantness associated with the implicit response of not eating the steak. And (by *Postulate* 4 above) the pleasantness which is associated with the implicit response of eating the steak is due to an inheritance from past experience—the satisfaction of hunger having been pleasant and steaks in the past having satisfied hunger. That this is the correct and relevant answer to the question—what in the existing hunger situation determines my overt response of muscular flexion, manual prehension, salivary

flow, oral circumambience, dental mastication, and so on, in other words the overt response of actually commencing to eat the steak? —becomes apparent when a suppositious separation is made of the two rival determining factors, the steak itself or the pleasure associated with the steak. Suppose, being hungry, that I knew I could have either the steak without the pleasure of satisfied hunger or any other pleasure, or I knew I could have (in some magical manner) the pleasure of satisfied hunger without the steak. Which would I choose, that is, which response would I make? I should no more choose the steak in this new situation than I would have chosen the stone in the original situation, since both would be absolutely indifferent in that, by hypothesis, they would bring no pleasure but on the contrary, leave me with gnawing hunger. My choice would be determined by the prospect of pleasure on the one hand, or at least release from displeasure, and no pleasure at all on the other. It is, therefore, in the hunger situation not the steak but the pleasure associated with the steak which determines my behavior and in an ultimate sense pleasure is what I "want.")

The experiences which determine the present affective tone of prospective responses may, of course, be vicarious. The martyr has never been one before, certainly not suffered molecular transformation in the dispersal of death. Yet his response to the surrounding situation is death and martyrdom because from vicarious experience—say from brooding over Foxe's *Book of Martyrs* or exulting in Plutarch's *Lives of the Noble Grecians and Romans*—that alternative, with its halo of eternal renown, the prospect of advancing a beloved cause, having his name engraved in song and marble, is at the moment of decision associated with pleasantness, however tenuous, while the alternative of abjuration, with its crown of odium, contempt, and disservice, even though promising physical safety, is associated with unpleasantness. (This example, though not pretending to be a complete answer, may show the intelligent reader that the hoary "martyr objection" to hedonism requires only a modicum of thoughtful analysis for its demolishment.)

Postulate 5. In particular, if a certain stimulus is accompanied by unpleasantness, pleasantness will be associated with those types of responses which in the living or hereditary experience of the organism have resulted in its removal; if a certain stimulus is ac-

companied by pleasantness, pleasantness will be associated with those types of responses which in the living or hereditary experience of the organism have resulted in its retention, continuation, preservation, or enhancement.

Comment. For example, thirst is always associated with unpleasantness. (If being thirsty or hungry is sometimes felt as a joyous or exhilarating sensation, this is simply because the anticipation of available relief is so pleasant as to overshadow the concomitant unpleasantness. That these sensations are in reality unpleasant becomes apparent when they are attended to apart from any modes of relief; even the slightest hunger is noticeably unpleasant if we "do not know where our next meal is coming from." It would never occur to primitive man to think of hunger or thirst as anything but unpleasant. Further, when sufficiently increased in degree, the unpleasantness of thirst and hunger becomes so overwhelming as to preclude positive affective response to any other stimuli—no one in an advanced stage of thirst could receive pleasantness from listening even to that music which ordinarily was to him in the highest degree delightful.) In the experience of most or all organisms the thirst stimulus has in the past been removed by the consummatory response of drinking water. Therefore, when stimulated by thirst, pleasantness is always associated with the response, whether actual or symbolical, of drinking water.

Or again, for a certain organism the stimulus of Schubert music, let us say, is always or usually accompanied by pleasantness. In the organism's experience sitting still and paying attention has resulted in the continuation of this pleasantness. Therefore, when stimulated by Schubert music, pleasantness is associated with the response of sitting still and paying attention.

Thus (1) if thirst is present, the organism will "choose" water and "reject" vinegar; (2) if Schubert is present, the organism will "choose" listening and "reject" making obstructive noise; (3) if both stimuli are present, the organism will "choose" the response —drinking or listening—which is, at the moment of inception, of noticeably greater pleasantness.

It need hardly be remarked that it would be no valid objection to this deterministic view of motivation to offer a rejoinder of the following sort: "You say that in such a conflict situation if the organ-

ism found drinking more pleasant, he would be determined to drink. This is not necessarily so, as I can easily demonstrate, for next time I am thirsty and drinking seems more pleasant than whatever I am doing, I'll *refrain* from drinking—thus clearly upsetting your theory that the pleasantest alternative prevails in every instance." Obviously this does not upset the present theory but actually confirms it, for in the proposed experiment the conflict would be between the affectivities associated with drinking on the one hand and with "upsetting your theory" on the other. If our opponent's eagerness to do the latter generates sufficient positive affectivity, then of course he will be determined to ignore his thirst. But still he is following the course which appears pleasantest, despite his contrary belief.

As a corollary to this postulate it may be remarked that there is similarly a functional relationship between the degree of pleasantness or unpleasantness in the stimulus and the speed, certainty, and duration of its retention or removal in the response.

It was stated above that thirst is always accompanied by unpleasantness and that if at times it seems not to be, that is due to the presence of extraneous factors which are associated with pleasantness. At first sight it might be supposed that such a statement would be incapable of disproof; and, as is commonly recognized, if there is no theoretical means by which a statement could be disproven, then such a statement lacks discriminating usefulness and hence ultimately logical significance. Upon closer consideration, however, it will be seen that this legitimate stricture does not apply to the cited fact. That thirst is always unpleasant could very readily be disproven by placing an organism, with all proper experimental safeguards, in an unmistakable thirst situation and then observing it to act in a manner from which its experiencing pleasantness, or at least indifference, could validly be inferred; or more roughly and taking a human example, by inducing in a man a good thirst, asking him to concentrate his attention on the thirst stimulus—with no consideration of any quenching to follow—and then having him seriously and honestly say, "I like this sensation" (with his verbal behavior being corroborated by his muscular behavior in that he seeks in no way to allay his thirst but simply goes on enjoy-

ing it). That thirst is always unpleasant, within the meaning of our definitions, is shown by the observed fact that overt behavior, animal and human, is always in the direction of avoidance, diminishment, termination, riddance. The assertion, established by induction from this observed fact, could therefore easily be disproven by the exhibition of an instance, free from extraneous stimuli, of cultivation, fostering, retention, acquiescence, or the like—in other words of "being for" instead of, as we observe both in ourselves and in other organisms, "being against." An instance of this positive type of response under the stimulation of thirst has thus far not come to the author's notice.

The statement accordingly made concerning the negative hedonic tone associated with thirst could be comprehended roughly under a broader general rule: for most organisms stimuli which if their cause be not removed result in the destruction of the organism are always associated with unpleasantness. This rule would evidently take in both thirst and hunger, and, in a more extended sense, the complex of sexual stimuli (for if the cause of the latter be not removed the destruction of the species, if not the individual, organism results). It appears to be a generic trait of nature that conditions threatening the existence of the type organism should appear unpleasant to its members; the workings of this natural trait result in the universally observed phenomena ranged under the idea of "the will to live." We may now state another corollary to *Postulate 5:* if a certain stimulus is engendered by conditions which lead to the destruction of an organism, pleasantness will be associated with those types of responses which in the living or hereditary experience of the organism have resulted in the removal of that stimulus. (To this corollary the behavior of certain organisms—notably a few species of insects—furnishes some remarkable exceptions: these are those cases in which organisms follow self-destructive behavior by instinct, behavior usually connected with the ritual of reproduction. But even in these cases it is to be observed that pleasantness may be inferred to be associated with acts which, though destructive of the individual, are preservative of the type organism.)

Postulate 6. In so-called deliberate behavior the pleasantness and

unpleasantness which determine choice among the alternative responses are those engendered with the symbolical performance of those responses.

Comment. The symbolical performance may consist in the subvocal manipulation of verbal symbols, in attending to each alternative in imagination (manipulation of visual symbols, perhaps), in the assumption of alternative preparatory muscular sets (manipulation of kinaesthetic symbols), in the memory of similar past acts, and so on. For example, when I am thirsty and I am confronted with the alternative response possibilities of drinking water, drinking wine, or not drinking at all, each with its further foreseen consequences—and none having instantaneous effective preponderance, so that deliberation ensues—my overt conduct is determined by the comparative affectivities associated with each response symbolically actualized. In the usual case I imagine myself drinking the water, drinking the wine, or refraining from both. Each of these internal responses then becomes itself a stimulus, the further response to which may be not only conscious affectivity but even a physical flow of saliva. Then when the stimulus (again the result of past experience) which causes me to deliberate at all in this situation is satisfied and removed by the lapse of time, and further hesitation has become the less pleasant alternative than action, I act—by doing explicitly what appeared pleasantest when done implicitly, swallowing the wine, say.

Deliberate behavior is, however, neither necessarily nor usually the result of a *conscious* process; in such "problematic situations" as that just delineated but where no awareness apparently exists, it may reasonably be inferred nevertheless that below the level of consciousness all but one of the act impulses are blocked and prevented from reaching the effectors, while the one is allowed through to issue in overt behavior. That one is that which in past direct or indirect experience (which includes inferential reasoning, advice, persuasion, threats, conditioning, and the like) has been associated with greatest pleasantness or least unpleasantness.

It may be noticed that the possibility of alternate responses in a "problematical situation" arises in three ways: (a) from the possibility of different responses with respect to the same stimulus,

(b) from the presence of competing stimuli, or (c) from a combination of both. Examples: (a) I am hungry; I can satisfy my hunger by eating this bread or this meat or both; which shall I eat or which first? (b) I am hungry and I want to go to the theater; my means will not suffice to both; to which stimulus shall I respond? (c) I am hungry and play-inclined; my affluence is such that I can both eat and see; there is restaurant A and restaurant B; there is play C and play D; I can eat before or afterwards; which of the alternatives "present" shall I choose—AC, AD, BC, BD, CA, DA, CB or DB?

Definition. A *last means* is an object which, when reacted to, determines a stimulus-response contexture containing affectivity.

Definition. An *intermediate means* is an object such that, by reason of its causal relations with another object, reaction to it in an appropriate manner is a necessary or sufficient condition or both to the actualization of a particular last means.

Comment. Object here includes action, occurrence, situation, symbol, and so on, indeed any set of events which it is convenient to consider as a unified whole, permanent or transient.

A particular "object" (for example, Mozart's *String Quintet in g-minor)* is usually a species, under which the denotata are a large group of more or less similar occurrences, the extremes of which, however, may differ widely (for one man the Mozart "object" will be a series of disagreeable noises, for another it will be a complex aural symbol representing a romantic story, for a third it will be an exquisite texture of abstract, intrareferential tonal events and relations).

As it is reasonable to suppose that every reaction has an affective dimension, it would follow that every object reacted to is a last means to some affectivity (in the great majority of instances, certainly, indifference affectivity). Not every object, however, is an intermediate means, since not every object is a condition to the actualization of some other object—or if it can be so construed, it is in ways which are so remote and obscure as not to be of importance to axiology. Thus a random cloud passing in the empyrean is a last means—to pleasantness perhaps, to unpleasantness possibly, to indifference probably. The cloud, however, is hardly an intermediate means; reaction to it is normally in no way a condition to the actuali-

zation of some other last means. (Still, it *may* be an intermediate means. If someone says in good faith, "If you look at that cloud, I'll give you a dollar," the cloud then becomes the intermediate means to the dollar or whatever it will buy—or more precisely to the affectivity occasioned by the dollar or its equivalent.)

Let us consider somewhat of the relations which may obtain between intermediate and last means. Suppose an organism in the act of responding to a stimulus associated with negative affectivity (say thirst). By *Postulate 5*, pleasantness will be associated with the alternative response which in similar past situations has resulted in removing the unpleasantness—associated, say, with the intermediate means of filling a glass with cold water and the last means of drinking the water. The organism is, furthermore, making an implicit judgment, based on its past experience, that this type of intermediate means will lead to this type of last means and this type of last means to the pleasurable removal of the thirst stimulus. Since such a judgment is justified by universal experience, let us say that, for an organism stimulated by thirst, drinking water is a *correct* last means to the positive affectivity associated with the removal of thirst, and that filling a glass with water is a *correct* intermediate means to this last means.

But though determined to this response by the thirst drive, the overt acts performed by the organism may not be these correct means. The organism may act in error. Let us suppose that the glass available to the organism has, like a sieve, holes punched in the bottom, so that filling it with water is not, as a matter of fact, an intermediate means to pleasantness in the thirst situation. So far as the last means of drinking is concerned, *this* glass is an erroneous intermediate means. Let us also suppose that on a particular occasion the organism drinks "water," only to discover that the "water" is in fact vinegar. *This* act of drinking was an erroneous last means to the pleasantness in question. The organism has made a mistaken judgment that *these* means were in the class of *correct* means.

Now either or both of these erroneous means may occur. There are, therefore, four possible sequences involving an intermediate and last means to the satisfaction associated with removal of a driving stimulus:

Intermediate means	*Last means*	*Result*
Correct	Correct	Pleasantness (satisfaction)
Correct	Erroneous	Unpleasantness (dissatisfaction)
Erroneous	Correct	Unpleasantness (frustration)
Erroneous	Erroneous	Unpleasantness (confusion)

However, if the correct means should not *seem* the pleasantest alternative, satisfaction would still not follow. That is, the achievement of satisfaction in the removal of unpleasant stimuli depends on two factors: (1) the organism must *feel* greater pleasantness (or less unpleasantness) in the correct class of response-means (without which, by *Postulate 2*, "choice" of it is impossible, under the laws of "living" behavior) and (2) the organism must *know* (perhaps, as we shall see later, another specialized form of *feeling*) that a certain class of response-means is correct and that a particular response-means is in fact an example of the correct class (with respect to the particular stimulus situation and the nature of the organism concerned).

In these observations is suggested the pattern of wisdom in the conduct of life: to *feel* a compelling pleasantness in the correct intermediate and last means in recurrent or important stimulus situations, and to *know* that a particular feasible response *is* a correct intermediate or last means. To have the first faculty without the second is to have good intentions without the intellect to accomplish them; to have the second without the first is to have the intellect to understand but not the impulse to choose. To these oppositely deficient combinations two venerable phrases are pertinent: to the former, "Hell is paved with good intentions"; to the latter, "to know the better but do the worse" (or not do anything). And since, whether in feeling or knowing, a sequence of intermediate and last means can be correct in only one way and wrong in at least three ways (more if there must needs be in the sequence several intermediate means), well may be said of the whole problem of organic behavior, *facilis descensus Averno est*. The wonder in all organic behavior is that the descent is not made more often—that

in the very great majority of acts the one correct sequence of means is selected and the many erroneous sequences rejected.

Definition. A *stimulus-response contexture* is an interrelated set of neutral (neither subjective nor objective) elements of experience, which occur simultaneously, or within the specious present, the actualization of which as a set is necessarily and sufficiently determined by the reaction of an organism to a stimulus object.

Comment. There appears to be in every contexture a certain *polarity* around and with reference to which the elements are arranged. The contexture is experienced or known from the *point of view* of some organism. The accompanying affectivity seems to *belong* to that organism.

The contextures in which a particular organism is polar are *experienced* contextures for that organism; all other contextures can only be for it *inferred.* Included among the latter are contextures where (1) another organism is focal and where (2) an inanimate object is focal.

Affectivity may be perceived to occur in contextures where the self-organism is focal; this affectivity is then given directly in experience. Affectivity can only be inferred to occur in contextures where other organisms are focal. There is no inferential (and could be no experiential) evidence to indicate the occurrence of affectivity in contextures where inanimate objects (non-organisms) are focal. Indeed the potentiality or lack of potentiality for affectivity is precisely one of the criteria for inclusion in or exclusion from the class, *organism.* (However, these considerations do not necessarily preclude the admissibility of the hylozoistic view: that all material objects are organisms, but that the greater number can be inferred to experience only indifference affectivity.)

Definition. Elements of experience are those data, not further discriminable, of the compound combination and conglomeration of which an organism's experiential flow is composed.

Comment. This definition in nowise implies that experience occurs in discrete, atomic bits and then is built up synthetically into the wholes known to apprehension, but simply that if what is given in experience is analyzed far enough in any direction, component data will be arrived at which it is impossible to separate into any

lesser components. Again, whether or not the organism is *conscious* of the elements of its experience (and it rarely is) is wholly irrelevant to the fact of their existence. (Failure to understand this point is one of the chief factors disposing to misinterpretation of Hume and the construction of such systems as Gestalt psychology.)

If the term *event* be taken, as in the theory of relativity, to denote the single and unique occurrences in the space-time continuum in the aggregate of which Being consists, then *elements of experience* may be regarded as a subclass of events, the differentia of which is that they are related to some organism as focal. At a given time, for instance, and with respect to a given organism the following may be regarded as elements of experience: "the saturation of this yellow patch," "this line," "this kinaesthetic weight sensation," "the pungency of this aldehyde," "this movement," "this smoothness," "this spatial relation to q," "this positive affectivity," and so on.

Definition. An intermediate or last means being reacted to (forming part of a stimulus-response contexture) is an *actual* means for the reacting organism.

Definition. An object to which a particular organism has the capacity to react and which, if reacted to, would thereby be constituted an intermediate or last means is a *potential means* for the organism in question.

Comment. As regards an object in the past, if an organism actually reacted to it, we may call it a *past actual means* for that organism. Take, for instance, a piece of music—*La Scala di Seta* overture, say. With reference to the time between my birth and first hearing of the overture, it is for me a *past potential means.* With reference to the occasion of my first hearing, it is a *past actual means* (in my case to positive affectivity). If I am hearing it now, it is an *actual last means.* And as evidently I have the capacity to react to *La Scala di Seta*—and if I should react to it, it would thereby be constituted a last means—it is now, with reference to a future of indefinite extent, a *potential last means.* (This is not the same as, say, *future actual* last means, for the word *potential* connotes no *probability* that the object *will* become a means, but only that it *may*.) Attention to these adjectival distinctions resolves many pseudo-difficulties and prevents much confusion in the discussion of the relations of organ-

ism and environment. And the science of axiology is nothing else than the systematic investigation of certain peculiar types of such relations.

If, then, objects as defined in the five preceding definitions are *means,* what, it may be asked, are they means *to?* They are means to *value,* a definition of which will be offered presently. The investigation of the forms it assumes will be the chief concern of the remainder of this essay.

General comment. An account has now been given of the determinants of organic behavior in hedonistic terms. It is important to note that this account is not a teleological one in the classical sense. Behavior has been explained in conformity with the scientific view of determinism by temporal antecedents. Such terms as *end, purpose, final cause, design, motive,* and the like have been avoided, both because they are vague and, in actual usage, subject to hopeless confusion, and because they suggest a view of causation which has proven fruitless—the view that factors in the future, not yet actualized, in some manner *pull* events toward them.

In the introductory section, however, our choice of language was not so precise. The statement there expressed—"Psychological hedonism maintains it to be a given fact of human (and for that matter of all organic) behavior that pleasure *is* the sole end pursued"—may now be interpreted, especially in the light of *Postulates 2* and *3,* to mean that relative pleasantness and unpleasantness occurring prior to or simultaneously with the response to a stimulus determines the actualization of one alternative and the rejection of all others.

Or again when it is said that men "pursue goals"—the traditional hedonist holding the goal of pursuit to be pleasure, the anti-hedonist a variety of objects—the subject is enveloped in a double confusion. One is that both protagonists confound *last means* with that *to* which the objects are means. The other is that the term "pursue" suggests that the stimulus to action is something lying seductively in a not yet existent future, instead of in the immediate past or outstreaming portion of the specious present. Such a view, for reasons which need not be entered upon here, is inconsistent with scientific method and thus historically has proven barren in the advancement

of learning. Despite a deep-seated tendency to think in such terms, enshrined in and fostered by the terminology and structure of our language, at all critical points in the subsequent argument the attempt must be made to consider organic, like non-organic, behavior as determined solely by antecedent factors. (If at times the author slips into the traditional modes of expression, it must be considered merely as a means to facilitate the exposition—for it is to be admitted that the traditional language describing organic behavior has, in the present state of the linguistic art, much the greater ease and convenience of expression.)

Take a case of inorganic behavior—say, a pendulum in motion. Galilean science has taught us the confusion and futility which follow upon a question like, "To what end does this pendulum swing?" Such a question really conceals two others, each of which taken by itself is, if not wholly clear, at any rate fruitful: "What motivated some person to set the pendulum swinging?" and "What state is the pendulum likely to reach if left in motion?" The answer to the former would be the description of some complex of factors (stimulus plus implicit response plus greater positive affectivity) which determined organic behavior of a sort which resulted in imparting motion to the pendulum; the answer to the latter would be something like "A state of static equilibrium at the center of its arc."

Now the time has come in the evolution of philosophy to apply a similar analysis to organic behavior. Suppose a hungry cat moving toward a piece of raw meat and the question then asked, "To what end is this cat plying its four feet?" In a manner precisely analogous to the case of the pendulum, the question contains and obscures two others: "What motivated the observed behavior of this cat?" and "What is likely to be the near or remote outcome of the present occurrence?" An answer to the former would be, roughly, that for hungry cats stimulated by the smell and sight of raw meat, of all possible responses that of moving rapidly in the direction of the meat and eating it is the one associated with greatest pleasantness (because in the whole experience of the cat, the species, and the germ plasm perhaps, the consequences of that response, when actually adopted, have been associated with a pleasure greater than any other, such as may once have been associated with other responses made by trial and error). An answer to the latter question

would depend on circumstances and the implied time references. Normally the "end" of the cat's behavior would be his pleasantness in tasting the meat (last means) and in banishing hunger. But if the meat is poisoned, the "end" might be said to be the cat's death. Or if the meat is my intended supper, then the "end" may be my chagrin in having to go hungry. Unless some time and relevant circumstances are specified, no valid answer can be given, for the effects of any action whatever extend indefinitely into the future. What was the "end" of Cleopatra's nose being just the length it was? Save in some relative sense, the "end" is not yet and foreseeably never will be, for the chain of effects which followed from the agreeableness of that proboscis certainly continues still in full vigor.

Accordingly, when questions are raised respecting "ends" in organic, and especially in human, behavior, it should be done with full realization of what the questions demand—not, namely, a prediction of the probable future outcome to somebody at some time, but an account of the circumstances in the past which uniquely determined that behavior. Thus it is, in the hedonistic view, that an essential element in reducing the whole subject of "ends" in human and organic behavior to useful order is provided by the postulates stating that the necessary condition to choice among alternative responses is a feeling (not necessarily conscious) of relative affectivity.

Now again, the confusion of a last means with *that to which* the object is a means is so frequent, so pervasive, and so ruinous to clarity in an attempt at constructing a practicable theory of value that the subject deserves some further discussion. Reason traces the connexion between means or between means and *that which* the means lead to. A man can be persuaded to approve, and so choose, a particular means by the demonstration that it *is* a means to something which is agreeable to him. But no amount of persuasion will convince a man that he *ought* to like or value some particular object, considered in itself (not as a means to anything further), if in fact he does not. If an attempt at persuasion should be made, it can end only in a patent tautology: "You ought to like and choose this, because if you did, you would like it." If this were the limit of persuasiveness in axiology, then truly we might as well shrug our shoulders and say, *"De gustibus. . . ."* If, as is commonly held,

both in popular speech and in a number of schools of philosophy, various objects—such as a play of Sophocles, a chunk of Roquefort cheese, contributing to charity, planting one's foot on the summit of the Matterhorn, respecting the rights of one's neighbors, checkmate after driving through a Muzio gambit, a paid-up mortgage—are regarded as "ends" (*that which* means are means *to,* but which themselves are not means to anything else), then any rational ethics, aesthetics, or any other branch of axiological science becomes impossible. A man cannot be persuaded to like these objects if they are considered as "ends" and if, with or without trial, he simply does not like them.

But on the other hand, with the insight that these are not merely *that to which* means lead ("ends") but are themselves *potential last means* to positive affectivity, the possibility of a rational science of axiology is rescued. For means *are* subject to the persuasive powers of reason. We *can* demonstrate to the reluctant, skeptical, or uninformed individual how these objects do for some and may for all, including particularly himself, operate as *means* to the experience of pleasantness—that is to say, the possibility of demonstrating their aesthetic, ethical, economic, or other worth (as we shall see) is saved. All that we presume as the major premisses of such demonstration are, as implied by the postulates of hedonism, that the uninitiated individual does have his choices and conduct determined by pleasantness, in common with the whole of organic creation—if he did not, he would be a pathological freak, beyond not only all axiological persuasion but dangerously beyond all human intercourse—and that if a man can be made to believe that an object leads probably to his pleasantness, he will in corresponding degree find the object pleasant.

To repeat—and this point can hardly be driven home too often—there can be no more fatal mistake in the science of axiology than to confuse means with that to which means lead, and, in particular, facilely to call "ends" what are in reality simply last means. This common misapprehension may be illustrated once more by the example of thirst and the act of drinking cold water. Common speech has it that the "end" of a thirsty man's behavior is to drink. ("End" here has the usual confusing double sense: the man's purpose, that which he "has in mind" or "has in view," that which

motivates him; and that which terminates, puts an end to, satisfies his pattern of behavior.) But common speech, and much philosophical speech, is mistaken: drinking water is not an "end" in either sense; it is a last means. To what? To pleasantness for the individual driven by thirst—the pleasantness which normally accompanies the act of drinking under such circumstances. To drink is not that which determines his behavior (his "purpose"), for if "to drink" (present to the organism perhaps as symbolical behavior) were unaccompanied by pleasantness it would have no more effect on the functioning of his striped muscles (the actualizing of overt thirst behavior) than the most random, indifferent object imaginable—an Arctic penguin, a burnt match, the topmost leaf on a certain oak in Buckingham, the mosque of Hagia Sophia, the cube root of 2197, a fly which lit on the nose of Marcus Aurelius Antoninus six days prior to his death in Vindobona, striking F-sharp on the pianoforte, the fact that page 210 of J. B. R. Walker's *Comprehensive Concordance to the Holy Scriptures* concludes with the word *begat*. The sole factor which gives the drinking of water its determining character on our individual's behavior is that, under the circumstances, the prospect of it is accompanied by superior, in fact almost exclusive, pleasantness.

Nor is drinking that which terminates thirst behavior; it is the pleasantness or elimination of unpleasantness which accompanies and ensues upon drinking. This is made evident by considering the supposition that on a particular occasion either drinking is *not* (as in certain types of pathological thirst) accompanied by elimination of unpleasantness or that the thirst unpleasantness is dissipated (say by some specific drug) without drinking. Under the first supposition, of insatiable thirst, drinking would clearly not terminate the thirst behavior; in fact, under the double stimulus of unpleasantness due to the thirst itself and to the disappointment in the act of drinking it would continue in intensified form. And under the second, behavior would terminate without drinking; for if the unpleasantness of thirst were removed and it became a merely indifferent or even pleasant sensation, why should the organism be concerned to remove it, any more than any of the thousands of random indifferent stimuli which impinge daily on the receptors of every organism? It is clear therefore that it is positive affectivity

which initiates and terminates water-seeking (thirst) behavior. The water itself is, ordinarily in the circumstances, the last means to such positive affectivity.

In the hope that the foregoing pages may serve to outline the postulates and definitions of hedonism which are presupposed in the following argument, let us now turn to *value* proper, commencing with a definition of that elusive concept in hedonistic terms.

Chapter 2

VALUE AND ITS MODES

Definition. Value is affectivity occurring in the relational contexture determined by the reaction of an organism to a stimulus object.

"Object," as suggested by the definitions of Chapter 1, here designates thing, situation, action, occurrence, symbol, even symbol of a nonexistent object, "figment of the imagination"—in fact any stimulus or stimuli whatever that we find convenient to delimit and call "object." "Organism," as before, includes any living thing, from the simplest one-celled creature up to the State or Society or beyond, if it is convenient to consider more extensive intrarelated groups, and it may include entities usually designated inorganic if the hylozoistic approach seems advisable.

In regard to the wording of the definition, the question may be raised, "Is the relational contexture determined by the reaction or is not rather the reaction determined by the relational contexture?" The limitations of language do not seem to permit of absolute unambiguity on this point, but in a broad sense the definition is correct. It is a contexture determined by, that is, which turns out in the end to include, an organism's reaction which is the locus of value. Until a contexture includes the reaction of an "organism" to an "object" it is *not* the sort of contexture in which value can occur. Thus the relational contexture occasioned by an odor of raw meat drifting around a sleeping cat can contain no actual value; when, however, the cat awakes and reacts in the usual manner to such an odor, the contexture which then exists as a result of such reaction becomes the locus of value.

Affectivity, if any, which is present to an organism other than by reaction (response) to an object is excluded by the definition. *Value* is thus not the simple equivalent of *affectivity*. (However, if it seems psychologically preferable to consider every affective occur-

rence as a reaction to some stimulus, then the foregoing reservation loses its point and validity.)

The reaction of an organism to an object is the necessary and sufficient condition of the occurrence of value since positive, indifference, or negative affectivity exhaust the affective possibilities in any reaction, that is, the organism must either "care for," positively or negatively, or not "care for" every object to which it responds.

Every object in the universe "has" value, actual or potential, for every organism which is capable of response to it. In more exact terminology, value occurs or is capable of occurring in every case where an organism is able to respond (directly or indirectly) to an object.

As all value is basically of one sort—affectivity, namely—all instances of value are commensurable. Direct commensuration between different organisms is prevented by the egocentric predicament, but within the experience of the same organism all value occurrences are susceptible of such commensuration.

The so-called *objectivity* of values, which is supposed to constitute a prerequisite to any rational system of ethics or aesthetics, consists in the uniformity and stability (and hence also predictability) with respect to affectivity of the response contextures arising between type organisms and individual or type objects. For example, a certain picture "is" *objectively* beautiful only in so far as the type organism, Western cultured man, finds pleasantness in contemplating it; theft "is" *objectively* wrong only in so far as the type organism, *homo sapiens,* experiences unpleasantness in relation to it. Any occurrence of value is just as objective as any other—and just as subjective too. It is merely a linguistic convenience which confers superior "objectivity" on those values experienced as similar by a large number of people in the presence of similar objects, and which relegates to the realm of the "subjective" those values experienced as different in character by an individual or a small group or experienced in connexion with different objects. In short, clarity would be enhanced by dropping entirely the adjectives *objective* and *subjective* as applied to *value* and speaking instead of its relative stability and uniformity in particular instances or its lack of relative stability and uniformity.

When two organisms react mutually to one another as objects (each organism being the "object" of the other), the result is the formation not of one identical relational contexture with two value occurrences (that would have the awkward consequence, in frequent instances, of involving two opposite values in the same contexture), but instead of two different, but closely related, contextures. Neither organism, it may be inferred, experiences just those elements of the other which the other experiences of itself. Nobody, for example, is seen by another as he sees himself. The contexture, therefore, formed by the self reacting to another organism cannot be the same as that of the other organism reacting to a different aspect of the self. Thus there is no real difficulty in the fact that in the relational contextures determined by the mutual reaction of two organisms there may coexist two utterly divergent values.

In general, two or more organisms can never experience an identical relational contexture. For if they did, they would no longer be two organisms but the same one. The very condition of an organism's being distinguishable as an individual is that there is something unique in every one of its relational contextures and that, taken in its totality, each contexture is composed of an absolutely unique texture of events.

The given definition claims to be operational; that is, the terms in which it is enunciated designate concrete processes, objects, or events open to empirical verification by the accepted rules of scientific method. The reaction of organism to environment may be observed directly if appropriate techniques are available. Affectivity, in cases where the observer is the organism in the definition, may be observed immediately. If the organism is another human being, affectivity may be inferred from semantic behavior induced by appropriate stimuli, such as a request to report observed affectivity. In the case of all other organisms, or in the case of humans if the preceding technique is inapplicable, affectivity is inferred and measured by empathic inference from observed behavior, especially "expressive behavior." Example: when I am cut by a knife and feel pain plus unpleasantness I withdraw the hurt member and emit or tend to emit certain sounds; when an animal is cut by a knife and withdraws the affected member and emits similar sounds I infer the presence in the animal contexture of pain and unpleasantness. The

situation is then judged to involve negative value for the animal or, in looser and more popular language, from the animal's point of view the act of cutting "has" negative value. (The latter mode of speaking is objectionable, for in this instance if the act of cutting the animal is a means to some state of affairs which is expected to occasion pleasantness in the person doing the cutting, for him the action "has" positive value. The result is an idle verbal paradox—of the same object "having" both positive and negative value—which serves but to confuse the issues involved.)

From the definition of *value* as a certain sort of affectivity it will be seen that common phrases such as "the values of democracy" are misleading. The phrase just quoted is probably not intended to designate the countless unique occurrences of relational affectivities in a democracy; instead it refers to the *ways in which* value is or may be realized under a democratic system. The phrase, in other words, should in our terminology be amended to, "the democratic intermediate and last means to value." Literally, the *values* in democracy are identical in nature with any *values* whatever; it is the *means* in democracy *to* value which differ from, say, the *means to* value in oligarchical communism or clerical fascism. We might say, if the statement were not itself misleading, that to speak of the *values* of democracy, the *pleasures* of country life (pure air, green trees, silent nights), the *sorrows* of old age, the *beauties* of art, and so on, however useful these expressions may be in ordinary speech, is in reality to confuse means with ends.

So likewise if we were to speak behavioristically, as has been done, of *values* being *those things* toward which organisms so act as to acquire, retain, or increase possession thereof. The *things* "have" value; they *are* not values. The things are last or intermediate means. The *affectivities* towards which they are the means are the values. (All this parallels our previous discussion of the common practice of confusing last means with that to which the objects are means.)

It will be helpful for our subsequent analysis if we also define *utility,* which contrasts with *value* in not implying affectivity, either actual or potential.

Definition. Utility is a character predicable of any object which

was, is, or has the potentiality of being for a particular organism an intermediate means (to a last means).

Like value, *utility* is always relative to an organism; for intermediate and last means imply value, and value is always value for some organism. *Der Grosse Brockhaus* has utility *for* anyone understanding or capable of understanding German. It has none *for* ibises—unless considered merely as nest-building material. (Strictly even in this case—as so very often—there would in reality be two different objects of which utility was predicated: the *contents* of the volumes and the volumes considered merely as so much *paper*. The matter would not be worth mentioning except that it can hardly be too often illustrated how easy it is to fall into confusion in axiological matters through superficial analysis.)

Utility may be positive, indifference, or negative. Food in moderate quantities has positive utility; with respect to the number of hairs on my head, an abacus has indifference utility (an abacus is potentially a means to counting the number of hairs on my head, but as I am indifferent to the precise result, the utility of the means leading to that result is indifferent); a child's cart left standing at the head of a flight of stairs has negative utility (in that position it is incipiently an intermediate means to someone's experiencing unpleasantness through falling down stairs). Ordinarily, however, *utility* is considered as a positive quality. When the word is used without express qualification in this essay it is to be understood in that usual sense.

Utility and *value* have no necessary relation to one another. An object may have utility and not be valued, or not valued in the way of its utility. The presence of hydrogen in the sun has *utility* for swallows, because it is an intermediate means to the enjoyment of their avian satisfactions, but it "has" no *value* for them, because the nature of birds is such that no relational contexture between the species and solar hydrogen ever has been, is being, or probably will be formed. A spoonful of castor oil may have *positive utility* for a sick child, but in all probability it will simultaneously "have" *negative value*—in the child-castor oil contexture there will occur distinctly negative affectivity. Or conversely, an object may be valued but not have utility or utility corresponding to the value.

Great wealth (in symbolical form) is often valued in a degree notoriously disproportionate to its probable actual utility.

No object has the slightest *utility* unless some other object "has" *value*. This follows from the definition. A last means is an object in the relation to which value occurs, and no object has utility unless it leads to a last means. *Utility* is, therefore, the secondary concept, *value* the primary.

Utility, like *value,* may be qualified by the adjectives *actual* and *potential.* (This will become clear in the course of the subsequent discussion of the latter two terms.)

In the light of these definitions and distinctions, and those in the preceding chapter, we have next to consider the implied meaning of the type proposition or judgment which predicates *value* of any object. It will speedily be found that almost all such judgments and propositions are pregnant with ambiguity—the ambiguity, so far as it is axiological, consisting in the fact that ordinary language fails to discriminate between the numerous forms in which value may occur (at least twenty-four, as we shall see presently). This is quite sufficient to render the same proposition both true and false, depending upon the sense in which it may chance to be understood. Such a state of affairs will not, of course, do if we hope to make any progress toward clarification in axiological matters.

The type value proposition may be expressed in such words as "That thing has value," "This object is valuable," "Those things have greater value than these." Each of these expressions ostensibly predicates a quality, *value,* of a thing as an objective character of that thing. This implied ascription of objectivity to the universal *value* is inconsistent with the implications and intent of our definition of the concept.

We shall therefore commence by asserting the contradictory—no thing (object) in the universe *has* value. The proposition, "z has value," if z designates an object, is, in its literal sense, a meaningless proposition in our axiological system. An approach toward significance is made in, "z has value for x," where x is an organism; but this still is ambiguous and inadvisable. Closer to real signification would be, "x has value from z," and a still closer approximation

would be, "the relational contexture, xz, has value." All four of these forms of the type value proposition are objectionable, however, by reason of their use of the verb *to have*. This word carries with it almost ineradicable metaphysical connotations of a sort of possessive objectivity, the absolute avoidance of which is, I believe, essential to the grounding of a rational, scientific axiology. Unfortunately, the use of the verb *to have* is so rooted in our Indo-Germanic language system that it would prove wholly impracticable to discourse about value matters with any facility without employing expressions of this kind. But whenever in the following pages objects are spoken of as *having* value, the verb *to have*, or any equivalent, has been placed within quotation marks to indicate that it is to be understood subject to the reservations just stated.

Actually all cases of the occurrence of value are to be construed as relational in character—the value occurs as an unique element in certain stimulus-response contextures, neither objective nor subjective. (Indeed, I eschew both the latter terms as implicative of a confusing and superfluous dualism.) The object is correlated with the stimulus pole of the contexture, the organism with the response pole, the value with the so-constituted whole. Rare cases of the occurrence of value without any apparent object-stimulus are best construed as cases of defective knowledge of antecedents, not as non-relational value occurrences.

Next, depending on the circumstances which determine its occurrence, it appears that the generic term *value* may be qualified by nine adjectives, divided into four sets, each set being exhaustive of all possible cases. Any value which occurs, therefore, must be qualified by one adjective from each set and only one. The nine adjectives and four sets are as follows:

actual	*direct*	*positive*	*terminal*
		indifference	
potential	*indirect*	*negative*	*instrumental*

The qualifying terms *positive, indifference*, and *negative* are, of course, correlative respectively with the affectivities of pleasantness, indifference, and unpleasantness.

Direct value is that determined by the direct, unmediated reaction of an organism to an object. Direct reaction implies the presence of the object. Examples: the interest a mathematician takes in

Bernoulli's probability theorem; the pleasure a scholar derives from the Greek dactylic hexameters of the *Iliad;* the satisfaction of the possessor in his money as a medium of exchange.

Indirect value is that determined by the indirect, mediated reaction of an organism to an object. Indirect reaction implies the presence of connectives, usually symbolic, between the organism and the object. It is reaction to an object through some other object, the latter being present to the organism, the former not. Indirect value may occur whether or not the organism is aware of the fact of connexion, mediation, or symbolization. Examples: the interest a layman takes in the daily weather prediction "gives" Bernoulli's probability theorem an indirect value for him in so far as that theorem is represented in the probability calculations which make possible the prediction; the pleasure an unlettered man derives from a translation of the *Iliad* "gives" the original an indirect value for him, and this even though he may be unaware that his translation is not the original. (As the original *Iliad* is not the *means to* the translation, but the latter is in a sense the *symbol* of the former, this example shows—as we shall see more clearly in a moment—that indirect value is by no means synonymous with instrumental value. In this example the original "has" indirect value. For a person able to read the original and who was interested in it as a *means to* checking the accuracy of the translation, the original would "have" instrumental value.)

To come at the matter in a somewhat more technical way—some objects are responded to immediately or directly, others mediately or indirectly. The mediating object in the latter case is a symbol or sign. An object is constituted a symbol for a particular organism in so far as it evokes a response appropriate to direct stimulation by one of a class of different objects (different from the symbol object), which class may have any number of, or no, members. When an object is taken account of solely by virtue of the presence of a symbol (the symbol itself being taken account of immediately), we shall call the affectivity which occurs in the mediated stimulus-response contexture *indirect* value, as contrasted with *direct* value, which is affectivity occurring in the relational contexture determined by the reaction of an organism to a stimulus object, the object itself being immediately present.

As the mediate object is responded to only in virtue of a response to the immediate object, in every case of indirect value there must also occur direct value in the symbol-organism contexture. In the majority of symbolic contextures this value is indifference, but it may occur in any of the various modes, and it is independent of the mode of value in the corresponding mediated value contexture. Thus the symbol may occasion terminal value while the object symbolized occasions instrumental value (that is, the symbol is valued for its own sake, the object for its consequences—of which topic more presently), or *vice versa;* the symbol may occasion negative value, the object positive (the symbol is disliked, the object liked), or *vice versa.* In Pavlov's conditioned reaction sequence, the value occasioned for the dog by the mediated stimulus, the meat, need not have been of the same mode as the value occasioned by the direct, conditioned stimulus, the bell as such. In this epochal experiment the bell was a symbol, in our present sense, for the meat.

The mediate object is the designatum of the immediate object. It may or may not have existence, and the alternatives are irrelevant. Actual indirect value can and often does occur, without the designatum being in existence. Pavlov's dog may find value in his conditioned response to the bell even though all meat is nonexistent. Many of the things most valued by men, as responded to in symbolical form—for instance and especially things religious—are totally without probability of existence; as the phenomena of pious behavior attest, that fact by no means eradicates the cherished indirect values which a mass of individuals find in such empty symbols.

Learned symbols, and hence actual indirect values occasioned by their designata, make possible a vast extension of the organism's axiological experience. It can thereby (1) taste, test, and control future value possibilities, (2) sample affectively otherwise inaccessible present stimulus objects, and (3) recall, repeat, and preserve value experiences involving past objects. For example: (1) the prospective value of "tomorrow's concert"; (2) the loveliness of the Vale of Kashmir; (3) the classic beauty of the Pheidian Zeus at Olympia, as described by Pausanias or as pictured in archaeological reconstruction. (The latter example provides another instance in which indirect value accrues to an object which is certainly nonexistent, the value being occasioned by the presence of symbols.)

A high degree of cultural intelligence in an individual is largely constituted by a high potentiality for both direct and indirect value responses and the ability to make actual a large proportion of the direct positive responses while confining the actual occurrences of the negative responses to the indirect form. An individual of low cultural intelligence is able to experience comparatively few direct or indirect positive responses, and those negative responses to which he is liable he is unable to confine to the indirect form. An animal's responses are still fewer and it is usually unable to render either the positive or negative ones indirect; for the most part an animal's values are to be found only in responses to the immediately present environment. Extent and character of response mechanisms in any organism are a function of the place of the species on the evolutionary scale.

In so far as conduct is determined by the affectivity associated with symbols manipulated during the period of decision just prior to overt behavior, conduct may be said to be determined by indirect value, that is to say, values actualized in the presence of symbols—symbols of alternative courses of action and their foreseen probable consequences.

An object may be said to "possess" *actual* value for an organism when and only when it (the object) is an existent part of the relational contexture which defines value. A better way of stating the point might be—*actual* value exists only when affectivity is occurring in a relational contexture determined by the direct or indirect reaction of an organism to an object. Examples: the beloved "has" *actual* indirect positive value for the lover when he is enjoying her picture as a symbol; when I look through the windowpane at a thermometer which reads zero degrees and feel unpleasantness as a consequence, the cold weather symbolized "has" for me *actual* indirect negative value. In each case the symbol itself—picture-of-beloved or thermometer-registering-zero—"has" in the stated circumstances *actual direct* value, the picture positive, the thermometer negative. In addition, the thermometer, not as a symbol but simply as an object, probably "has" actual direct *indifference* value, that is, I am not interested in the thermometer as such but in the weather symbolized.

An object may be said to "possess" *potential* value for an organ-

ism at all times when it does not "possess" actual value, provided the organism is capable of direct or indirect response to that object. *Potential* value is the potentiality of actual value. The adjective is therefore subject to quantification: the potentiality of a value ranges from the merest possibility up to imminent probability. Example: a book may "have" potential direct positive, indifference, or negative value for a certain worm—potential positive value if considered as food for the worm; potential indifference value if, say, there is a possibility that the worm may crawl over the book in the course of its wanderings without being noticeably discommoded; potential negative value in that the book might fall upon the worm and cause its death—the negative value residing not in the fact of death (for death as such is nothing to an organism, since the existence of death consists in the ending of the organism's existence) but in the immediately precedent unpleasantness. But the contents of the book —the printed words considered as symbols—cannot be conceived to "have" any sort of value for the worm, direct or indirect, positive, indifference, or negative, actual or potential. For the nature of the object—the printed words considered as symbols—and the nature of the organism—the worm with its limited receptive mechanism—are such that no relational contexture is possible.

But the contents of the book may have negative *utility* for the worm. Supposing the contents to be the technique of insect pest control, they then have, before application, potential negative utility; upon application and when the results are felt by the worm, the book contents have actual negative utility. The utility is, of course, negative only *for* the worm; *for* certain human beings the utility of the contents—and also their value—would be positive.

Potential value "attaches to" an object both when it is being reacted to and when it is not. *Actual* value is to be ascribed to an object only when it is actually being enjoyed or disliked or being regarded indifferently. At all other times the object "has" only potential value, that is, it has certain characteristics such that if brought into immediate relation to a particular sentient organism, it is probable that affectivity would occur as a consequence. These two possibilities are exhaustive; we deny, as superfluous and unverifiable, any such thing as "value in itself." But even when an object is *being* enjoyed, it still may "have" potential as well as

actual value. For example, the actual value existent at any time in the hearing of a Bach fugue by no means exhausts the value content of the object, for in addition to the value actually being experienced there is the much greater potentiality of value in future hearings. The fugue "has" actual value as it is being enjoyed (or perhaps being hated) but it "has" potential value both when it is being enjoyed (or hated) and when it is not. The business of the critic is to estimate the *potential,* not the *actual,* value of a work of art, though his estimation of the former must be based on his own experience of the latter.

The potentiality in *potential* value may exist on either or both sides of the stimulus-response relation. The Bach fugue which a child hears and is indifferent to may still "have" great potential positive value for him, since there is the possibility, or probability, of his growing up to enjoy it. (A fugue, it may be asserted with great probability, "has" no value, potential or actual, for an amoeba for reasons the reverse of these.) On the other hand, a dish which the child does not at the moment like, because it is not yet properly cooked, still "has" potential positive value for him in view of the probability that within the hour it will be done to a turn and hence be tasty. In the former instance the potentiality may be thought of as residing in the organism, in the latter in the object. Instances in which the potentiality of value would be divided between both may readily be supposed.

An object may be said to "have" *terminal* value when the affectivity determined by a reaction to it is "for its own sake"; or, when the relational contexture determining the occurrence of value is that between the object conceived by itself and the organism—in other words, when the object is a *last means* to the *end* of affectivity.

An object may be said to "have" *instrumental* value when the affectivity determined by a reaction to it is in reality "for the sake of" some consequent object, proximate or remote. More formally the following definition may be proposed: *instrumental value* is affectivity occurring in the contexture determined by an organism and an object, in so far as that object is reacted to in its believed character of being, having been, or becoming a necessary or sufficient condition, or both, to some other object, which other object or its symbol forms with the organism a stimulus-response contexture

itself occasioning affectivity. (The second object may be called the *consequent object.*) There follow as corollaries to this definition, (1) that no object can "have" instrumental value unless some believed consequent object "has" terminal value; and (2) that (a) an object can "have" instrumental value with respect to a supposed consequent object even though as a matter of fact it is not a condition to that consequent and that (b) even though an object be a condition to a valued consequent object, it may not itself "have" instrumental value. (In the latter case, however, it must have *utility.*)

Almost every object which "has" terminal value (even a work of pure art) "has" also some degree of instrumental value. This is correlated with the proposition that almost every last means is also an intermediate means. The reverse of both these statements is also true.

Let us consider some examples of these value forms. A certain table which a man proposes to construct "has" for him actual indirect (and potential direct) positive *terminal* value—that is, he enjoys contemplating the table to be and *will* enjoy the finished table "for its own sake." The tools which he now possesses and enjoys as a means to making the table "have" for him actual direct positive *intrumental* value. Very likely the table too "has" *instrumental* value in so far as it is considered as an intermediate means to further objects, uses, and activities.

Pride, or more precisely the satisfaction inherent in pride, is also an example of instrumental value. Thus we say, "to take pride in a thing"; what we really mean is, "to take pride in ourselves by reason of being the cause of a thing." We create a thing; that thing evokes praise from others; the praise of others causes us immediate pleasure. We are then pleased with ourselves, considered as an object, by reason of being the intermediate means to a last means (praise) to positive affectivity. The conditions of the definition are fulfilled; we "have" for ourselves instrumental value.

Or again for example, consider the case of a Greek vase which in antiquity "had" instrumental value, being valued for the uses it served, for its utility. (No doubt its beauty "gave" it some terminal value, too.) Now, exhibited in a museum, it "has" terminal value only (unless perhaps the curator values it for the power it has of

attracting visitors through his turnstiles, in which respect then it would "have" for him instrumental value also).

The possibility of the same object "having" practically simultaneously terminal and instrumental value arises from the fact that it may stand in several relations simultaneously to other objects. For example, a college degree may afford immediate pleasure as the "end" (really last means) of a long series of reactions, thus "acquiring" terminal value; but at the same time it may be regarded as an intermediate means to obtaining a teaching position, itself intermediate to further last means, and in respect to this reaction series the degree "has" instrumental value.

By way of summary of the general discriminations intended in the preceding discussion of the adjectives applicable to the concept *value* and before proceeding to an examination in detail of their several combinations, let us once more briefly run through the four sets:

1. The terms *actual* and *potential* discriminate value occurrences as taking place or as capable of taking place in appropriate circumstances, respectively, given the individual or generic characteristics of the object and the organism. Potentiality must be understood as applicable to so-called past objects also, for instance, the character of Aristides the Just "has" potential value for an individual who has not yet been introduced to Aristides through the pages of Plutarch. But while *actual* value refers to present contextures, *potential* value refers to future contextures. Unless this latter fact is kept in mind, paradoxes may appear to result. Example: for a child the *Ride of the Valkyries* may "have" simultaneously potential positive value, potential indifference value, and potential negative value—the first referring to a time when he shall have learned to appreciate the music, the second to a subsequent time when he shall have grown indifferent to it, the third to a later time when he shall perhaps have come to dislike it in comparison with more subtle compositions.

To assert that an object "has" *potential value* for an organism is to assert that it "has" *the potentiality of actual value* for that organism.

2. The terms *direct* and *indirect* discriminate value occurrences as being determined in the one case by an immediate relation between the object and the organism and in the other case by a medi-

ate relation. A precondition to all *direct* value occurrences is that the structure of the organism and the structure of the object be such that the organism does or can react to the object without intermediate objects being brought into the relation. If the structures of organism or object are otherwise, such objects can "have," if any, only *indirect* value for such organisms—there must be present "catalytic agents," so to speak, in order that a reaction may occur. "Vicarious enjoyment" is an instance of indirect value.

The most important class of indirect value occurrences are those which depend on word-symbols as the mediating objects. The potentiality for indirect value occurrences of this type is the most important prerequisite to axiologically selective control by an organism of its environment.

3. The terms *positive, indifference,* and *negative* discriminate value occurrences as involving respectively pleasantness, indifference, and unpleasantness (collectively, hedonic tone). Each affectivity is by itself "absolute" but in relation to other, recalled affectivities each may be judged qualitatively and each, excepting *indifference,* quantitatively. Hence, when one value occurrence is compared with the recalled instance of another, it may be judged qualitatively as exhibiting positive, indifference, or negative value and quantitatively with respect to the degree of positive or negative value exhibited. Indifference value is not subject to quantitative discrimination; there is no discernible meaning in calling one object more or less indifferent than another. In the process of deliberation a common method of judging a value occurrence as to its hedonic tone is to compare that immediately felt with the hedonic tone associated with the absence of the object in question (symbolically reacted to) in the given time and circumstances. If I am uncertain as to whether I wish to do something, that is, whether doing that thing is associated with positive affectivity, my natural behavior is to compare its hedonic tone with that associated with the thought (subvocal symbolization) of *not* doing the thing. If I could detect no difference between the two in hedonic tone, I should assert the doing or the not doing to be indifferent, or to "have" indifference value.

Thus it follows that the same occurrence may be judged to include positive affectivity when compared with recalled or antici-

pated negative values but to include indifference value when compared with recalled or anticipated positive values, and so on. Any or all of these judgments may be true because they are each determined relatively. Likewise the same occurrence may be judged to include high positive value when compared with a negative instance and low positive value when compared with another positive instance, and so on. These cases are analogous to *hot* and *cold* sensitivities—water, say, being called hot or cold depending on the retained influence of prior sensations.

However, the great majority of value occurrences are unambiguously referred to one of the three qualitatively distinct classes by comparing each one, not to some other specific occurrence, but to the mass of the individual's hedonic experience, or, on the part of external observers, by correlation with types of observed behavior.

The class of *indifference value* may be said actually to be postulated only for analytical convenience—to provide continuity of axiological reference. Probably an indifference value, that is, one characterized by indifference affectivity, is in no wise distinguishable from a mere sensitivity. Belief in its occurrence is commonly indicated in such judgments as, "Such and such an object has *no* value for such and such an organism"—though strictly the fact asserted is not true. Indifference in any case is *sensible,* not *absolute* indifference.

4. The adjectives *terminal* and *instrumental* discriminate between value occurrences which are conditioned in the one case by no factors other than the organism and the object, and in the other case by a causal connexion in addition, which the present object is believed to bear to a supposed future object of interest.

Behaviorally, terminal and instrumental value are often correlated with preparatory and consummatory reaction, respectively. Terminal value accrues in a consummatory reaction—a reaction which is the terminus of a series of related acts on the part of a particular organism and which is succeeded by repose or by a shift to a different series. Instrumental value accrues in a preparatory reaction—a reaction which occurs in a series so motivated as to result in a consummatory reaction. With respect to such a series, the object in a preparatory reaction is an *intermediate means,* and the object in the consummatory reaction is the *last means* to the *end,* which

is the affectivity engendered by the consummatory reaction. The affectivity in the preparatory reaction is, so to speak, a foretaste of that expected in the consummatory reaction.

To be unambiguous an assertion of instrumental value should include two specificatory clauses, "instrumental value *for* such and such an organism and *with respect to* such and such a consequent object."

To return to our schema of the nine adjectives, divided into four sets, predicable of *value*—since, as should now be apparent, each set is independent and any occurrence of value must be qualified by one and only one adjective from each set, it follows that there are twenty-four modes in which value can be actualized and therefore twenty-four corresponding forms of propositions asserting the existence of value. In value propositions as commonly expressed all these forms are confused indiscriminately—a proceeding which, needless to say, engenders endless misunderstanding in the discussion of matters axiological. The twenty-four modes are as follows:

I. *Actual direct positive terminal value.*
II. *Actual direct indifference terminal value.*
III. *Actual direct negative terminal value.*
IV. *Actual direct positive instrumental value.*
V. *Actual direct indifference instrumental value.*
VI. *Actual direct negative instrumental value.*
VII. *Actual indirect positive terminal value.*
VIII. *Actual indirect indifference terminal value.*
IX. *Actual indirect negative terminal value.*
X. *Actual indirect positive instrumental value.*
XI. *Actual indirect indifference instrumental value.*
XII. *Actual indirect negative instrumental value.*
XIII. *Potential direct positive terminal value.*
XIV. *Potential direct indifference terminal value.*
XV. *Potential direct negative terminal value.*
XVI. *Potential direct positive instrumental value.*
XVII. *Potential direct indifference instrumental value.*
XVIII. *Potential direct negative instrumental value.*
XIX. *Potential indirect positive terminal value.*
XX. *Potential indirect indifference terminal value.*
XXI. *Potential indirect negative terminal value.*

XXII. *Potential indirect positive instrumental value.*
XXIII. *Potential indirect indifference instrumental value.*
XXIV. *Potential indirect negative instrumental value.*

The remainder of this chapter will be devoted to an examination of each of these modes in turn. In order to render more clear their several meanings and the sometimes subtle distinctions between the modes, two assumed reaction situations will be carried through the list—one chosen from the human realm, where introspection may be assumed, and one from animal behavior, where value judgments can be supported only by inferences from external observation. Aside from its use in illustrating the modes of value occurrence, the latter series of examples will have also the purpose of demonstrating in detail that judgments of value are, or can be, grounded on evidence as objective and verifiable as that which supports so-called judgments of fact—indeed, that judgments of value *are* judgments of fact and are subject to the same criteria of logical or scientific verification.

The assumed human situation will concern the axiological relations between a man, a concert, and a ticket to that concert; the animal situation, a cat, food or medicine, and the several means to the food or medicine. The occurrence of the value mode in each situation will be denoted in three or four alternative verbal propositions, separated by semicolons, varying in degree of looseness or precision of expression but intended otherwise to be equivalents. These will be followed in each of the twenty-four modes by a symbolical representation of the type proposition expressive of the particular mode of value occurrence. The latter procedure will serve, as usually with propositions rendered in symbolical form, to make clear what is logically implied by the corresponding verbal forms, but it will also serve to demonstrate once again that propositions or judgments of value are fundamentally propositions or judgments of fact, for it will be found on the one hand that these symbolic formulae precisely represent the ways in which value does occur and on the other hand that they are identical in logical form with acknowledged propositions or judgments of fact in the non-value fields now the accepted domain of scientific method. In each instance x will designate the organism, z the last means to value, y an intermediate means to z, and P, I, and U, pleasantness, indifference,

and unpleasantness respectively. For the convenience of the reader a Vocabulary of these and all other symbols used in the succeeding value formulae is appended on pages 327–330.

I. ACTUAL DIRECT POSITIVE TERMINAL VALUE *

1. A man is listening to and enjoying a symphony; the symphony "has" actual direct positive terminal value for the individual x (the positive quality being determined by comparison with the generality of the individual's other affective experiences or by comparison with the affectivity which would be felt in the absence of the object—namely, in *not* hearing the symphony—at this time); there exists a relational contexture (xz) determined by the reaction of an organism (x) to a stimulus object (z) in which positive affectivity (P) is occurring.

2. A cat (x) is eating and enjoying a certain item of food (z); the food (z) "has" actual direct positive terminal value for the cat (x).

3. xzP

where x is an organism, z an object (last means), and P is pleasantness (positive affectivity) occurring in the stimulus-response contexture xz.

a. The positive value thus judged is subject to approximate quantification in degree. In the case of the human being both the positive quality and the degree may be perceived directly, under the stimulus of intent to observe, by the subject organism; by all other organisms these can only be inferred from observed behavior, including verbal behavior. In the case of the cat, affectivity and degree can only be inferred by empathic analogy from observed gross behavior, including behavior both immediately prior and immediately subsequent to the present occurrence, but of course not including any verbal elements.

b. Consistent with the assertion of actual direct positive terminal value is the simultaneous assertion of any one of the other twenty-three modes of value occurrence, excepting actual direct indifference terminal value and actual direct negative terminal value. In general, the circumstances being unchanged, any proposition asserting a particular mode of value occurrence is consistent with the

* The technical material from this point to p. 72 (Mode XIII) may be skipped by the non-technical reader.

simultaneous assertion of any one of the other twenty-three modes excepting in each case the two which differ only in hedonic tone (P, I, or U). The reader may verify this general rule by comparison of the propositions in 1 and 2 above with the succeeding examples illustrating the other modes. An example of the compatibility of positive terminal with negative instrumental value: a glass of strong drink, which a man is enjoying but which at the same time he apprehends as causing him discomfort later; an example of the compatibility of negative terminal with positive instrumental value: a dose of medicine, which a man simultaneously values negatively for its disagreeable taste and positively for the salubrious effects he expects to follow from its imbibition.

II. ACTUAL DIRECT INDIFFERENCE TERMINAL VALUE

1. x is listening to a symphony (z) which he neither likes nor dislikes; the symphony (z) "has" actual direct indifference terminal value for x. (The indifference quality is judged by comparison with the generality of x's other affective experiences, being pleasant in comparison with some and unpleasant in comparison with others, but more particularly it is judged indifferent in comparison with the affectivity associated, in implicit behavior, with *not* hearing the symphony. In common speech, x does not *care* whether he hears the symphony or not.)

2. A cat (x) is toying with a certain item of food (z) which, by his behavior, it may be inferred he neither likes nor dislikes (that is, the cat does not "care" whether he is left to continue nibbling at that food or whether some other is substituted or whether at the moment he has any at all—he is, say, just at the point of satiation); the food (z) "has" actual direct indifference terminal value for the cat (x).

3. xzI

where I is indifference affectivity.

a. The symphony is *sensibly* indifferent for x, it is not *absolutely* indifferent, that is, "having" no value at all for x; this latter could only be the case if x's nature were such that under no possible circumstances could the object (symphony) form part of a relational contexture which would include affectivity. From the point of view of hylozoism it might be held that every object in the world is involved in axiological relationships with every other object. For in-

stance, the symphony might be thought to "have" potential indirect negative instrumental value for the ink bottle on the table in front of me. For the ink bottle might be lying on the floor of the concert hall and x, brought thither by the symphony, might step on it and destroy it—in the hylozoistic view presumably an unpleasant eventuality. This possibility existing, however remote it might seem—and given the point of view of hylozoism—it could not be veritably maintained that the symphony "had" *no* value for the inkbottle. (It will readily be surmised from this example, however, that if the hylozoistic view were to be adopted, it would so enormously enlarge the range of axiological events that we should have arbitrarily to restrict the extent of our discussion in the interest of specifically *organic* axiological events in which we, as organisms, are particularly interested.)

III. ACTUAL DIRECT NEGATIVE TERMINAL VALUE

1. x is listening to a symphony (z) which he dislikes; the symphony (z) "has" actual direct negative terminal value for x, the negative quality being determined in a manner similar to the two preceding examples. (In particular, x's present affectivity lies to the negative side of the scale when compared with the affectivity associated with the implicit behavior, "if I were not hearing this symphony." The result of the comparison would generally be expressed in some such form as, "I would rather not be hearing this symphony.")

2. A cat (x) is rejecting a certain item of food (z), say because it is painfully hot; the food (z) "has" actual direct negative terminal value for the cat (x).

3. xzU

where U is unpleasantness (negative affectivity).

a. The negative quality is subject to quantification. Perhaps the symphony "has" actual direct strongly negative terminal value for x: "I would very much rather not be hearing this symphony."

b. In this, as in all other instances of negative value, when the experience is associated with U, it becomes a stimulus to action with a view to alteration of the environment and removal of the U. ("With a view to" means that alternatives which as a result of the organism's experience promise to remove the unpleasant stimulus

will be invested with an aura of pleasantness and so become "choice-worthy.") In this instance, x's reaction may range from mere inattention, through implicit substitution of other stimuli, to actual departure from the concert hall.

c. If x dislikes the symphony but upon comparison finds that he would dislike still more *not* hearing it, then, so far as this particular comparison goes, it must be judged that the symphony "has" for him actual direct positive terminal value—any relative location toward the positive end of the hedonic scale being an instance of P. Of course if x persists that even so he does not find any pleasantness in the symphony, it must be presumed that he has gone beyond the mere comparison with not hearing it and is matching the affective tone in question with the funded affective scale based on the mass of his total experience.

IV. ACTUAL DIRECT POSITIVE INSTRUMENTAL VALUE

1. x feels pleasure in possessing a ticket (y) to a symphony (z) to which he looks forward with pleasure; the ticket (y) "has" actual direct positive instrumental value for x with respect to the symphony (z).

2. A cat (x), having been conditioned to respond to the opening (y) of a can of fish as an intermediate means to his eating fish (z) and being at present hungry, exhibits behavior upon observing the opening which can be inferred to result from positive affectivity (P); the can-opening (y) "has" actual direct positive instrumental value for x with respect to eating the fish (z).

3. $\dot{x}y(z) \cdot (x"z"P)] P$

where y (z) is "a believed intermediate means to z," and "z" (z in quotation marks) is "symbol of z." As will appear subsequently, the expression (x"z"P) represents actual indirect positive terminal value.

a. The ticket "has" positive instrumental value in virtue of the fact that the symphony "has" positive terminal value. This instrumental value relation is, however, conditioned by several interesting restrictions: the ticket "has" actual direct positive instrumental value *provided* x (1) believes that this ticket is the means to hearing the symphony and (2) feels P in the relational contexture determined by his reaction to the symbol of "hearing the symphony,"

that is to say, if the symphony "has" for him actual indirect positive terminal value. (It is possible that the symphony should "have" for x *instrumental* value to some further object, in which case it would still reflect value back upon the ticket, but in that case some other object must eventually "have" terminal value.)

The existing actual direct positive instrumental value which the ticket "has" for x would not be altered by either (3) the fact that the ticket is *not* a means to the symphony (perhaps it is actually a ticket to the circus), or (4) the probability that when x comes to hear the symphony he will dislike it. These possibilities would not alter the existing value because all values are *values for,* and neither of these suppositions would change the *present* relational contexture determined by the reaction between x and *his* objects. That one or both of these objects may in some sense be called false does not at all make the felt values false—an instance of a principle of far-reaching importance in ethics and aesthetics.

However, in case (3) it may be said that though the ticket now "has" actual direct positive instrumental value for x with respect to z, with reference to the time when he will become aware that it is really for the circus (or at least with reference to the moment when he will try to gain admission to the concert with it), it does *not* now "have" *potential* direct positive instrumental value with respect to z, but "has," most likely, potential direct *negative* instrumental value with respect to the circus. That is, though x now values the ticket "for the sake of" the symphony, it is probable that he will cease to do so and instead will come to disvalue it "for the sake of" the circus. To convince x that (3) is actually true would be to destroy the existing value relation between him and the ticket.

In case (4) it may be said that though the ticket "has" actual direct *positive* instrumental value for x with respect to z, z does not "have" potential direct (though it "has" actual indirect) *positive* terminal value for x but rather potential direct *negative* terminal value (since it is assumed to be probable that x will *not,* actually, enjoy the symphony).

b. These possibilities are by no means exhaustive. For instance, the so-called ticket (y) may not be a ticket at all. In this case it could be asserted that the object (y) does not "have" any sort of potential direct instrumental value for x with respect to z (with reference to

the time when he tries to get into the symphony with it), but has, say, potential direct indifference terminal value for x, that is, it will turn out to be a worthless piece of paper.

c. It is probable that at the present moment the ticket also "has" for x actual direct indifference terminal value, since considered in and for itself the ticket is indifferent to x. If, however, it be a singularly fine specimen of the printer's art, it may "have" for him actual direct positive terminal value, x deriving P from the ticket "for its own sake." Similarly, if it is an atrocious specimen, it may "have" actual direct negative terminal value for x—either of these along with its actual direct positive instrumental value.

d. It is of course conceivable that x should feel pleasantness in the possession of the ticket *as a means to* hearing the symphony and yet anticipate the symphony itself with unpleasantness. Would the pleasantness occasioned by the ticket-as-means be instrumental value? We should probably have to say yes, but a sort of instrumental value applicable only to madmen. For, though conceivable, it is hardly consistent with human nature to derive pleasantness from that which is recognized as a means to unpleasantness and solely in virtue of its being such a means. We shall, therefore, here and in the succeeding discussion assume that finding the object (z) pleasant is a necessary condition to finding pleasant the means (y) to that object.

e. Considerations similar to all these, but simpler, apply in the case of the cat.

V. ACTUAL DIRECT INDIFFERENCE INSTRUMENTAL VALUE

1. x possesses a ticket (y) to a symphony (z) to which he looks forward with disinterest; the ticket (y) "has" actual direct indifference instrumental value for x with respect to the symphony (z).

2. A cat (x), having been conditioned to respond to the opening (y) of a can of fish as an intermediate means to his eating fish (z) and being at the moment satiated, exhibits behavior upon observing the opening which can be inferred to result from indifference affectivity (I); the can-opening (y) "has" actual direct indifference instrumental value for x with respect to eating the fish (z).

3. $[xy(z) \cdot (x\text{''}z\text{''}I)]\ I$

a. As before, indifference is determined by comparison with the

affectivities of other objects and especially with the affectivity associated with the opposite course of conduct, namely, *not* hearing the symphony. If the hearing or not hearing of the symphony (as tested in implicit behavior) show neither of them any noticeable or steady balance of hedonic tone, the last means (z) in such case is indifferent in value and the value of the intermediate means (y) becomes so too by its dependent connexion. Also as before, these affectivities are quite independent of the nature of the potential value of the last or intermediate means.

b. At the same time that the ticket "possesses" actual direct indifference instrumental value for x with respect to the symphony (z), it may well be not at all indifferent in other respects: for instance, the ticket may "have" actual or potential direct positive instrumental value for x with respect to the sum he could realize on it if he decided to resell it. Because x is indifferent to the symphony, and so to the ticket as an intermediate means to the symphony, does not mean that he is indifferent to the ticket as an intermediate means to its cash equivalent. Assertions of instrumental value must thus, to be unambiguous, either state or imply clearly, "with respect to z," where z is a specific object believed to "have" potential terminal (or further instrumental) value.

VI. ACTUAL DIRECT NEGATIVE INSTRUMENTAL VALUE

1. x possesses a ticket (y) to a symphony (z) to which he looks forward with the anticipation of dislike "for its own sake"; the ticket (y) "has" actual direct negative instrumental value for x with respect to the symphony (z).

2. A cat (x), having been conditioned to respond to the opening (y) of a bottle of medicine as an intermediate means to a teaspoonful being forced down his throat (z), exhibits behavior upon observing the opening which can be inferred to result from negative affectivity (U); the bottle-opening (y) "has" actual direct negative instrumental value for x with respect to the administration of medicine (z).

3. $[xy(z) \cdot (x"z"U)]\ U$

a. As before, the ticket may "acquire" instrumental value in various ways. In so far as the possession of the ticket constitutes an intermediate means to U associated with going out on a stormy

night, it would be "endowed" with another actual direct negative instrumental value quite apart from x's sentiments toward the concert itself. Similarly, in so far as the possession of the ticket constitutes an intermediate means to meeting an old and cherished friend, it would thus be "endowed" with actual direct positive instrumental value, quite apart again from x's possible forebodings as to the music.

b. If, in view of these divergent but not inconsistent value judgments, it be asked, "Yes, but all in all what value *does* the ticket have for x?" the only sensible reply must be based on the approximate aggregate of the several instrumental values "attaching to" the ticket with respect to its several consequent last means (or several further consequent intermediate means), together possibly with any terminal values it may "have." This aggregate, which can only be directly estimated by x himself and must be inferred by other observers, is what will determine x's action with respect to the ticket when the time for a decision arrives. The judgment expressing this aggregate is no more uncertain nor less "objective" than many other similar judgments which pass current— "On the whole women prefer *Anna Karenina* to *War and Peace*," "Public opinion favors lower taxes next year," "It is not good form to eat peas with your knife."

VII. ACTUAL INDIRECT POSITIVE TERMINAL VALUE

1. x derives enjoyment from the thought of listening to a symphony (z); x looks forward with pleasure to the symphony; from implicit behavior, such as manipulation of the subvocal symbols, "if I hear the symphony," x derives positive affectivity; P occurs in the relational contexture determined by the reaction of x to a symbol of a symphony ("z"); the symphony (z) "has" actual indirect positive terminal value for x.

2. A cat (x) smells meat (z) and behaves in a manner which indicates enjoyment; the smelled meat (z) "has" actual indirect positive terminal value for x.

3. x"z"P

We have seen that this formula is embodied as a component part of that representing actual direct positive instrumental value.

a. That the value which is existent in this situation is not merely

"internal" but refers in some sense to the "objective" symphony is predicated on the assumption that the symbol is determined by the object and that any significant change in the latter (examples: all copies of the symphony are destroyed and it will not be played; it will be played in a two-piano version instead of the original; it will be played by the orchestra but backwards instead of forwards) would occasion a corresponding change in the symbol and hence in the value contexture.

b. Actual indirect positive terminal value might be engendered by x and z in various other ways: x might derive P from reading in the newspapers of the coming performance, or from reading a review of the performance in tomorrow's paper, or from recalling the concert with pleasure ten years hence.

c. As in much of human experience, the borderline between direct and indirect value, as depending on symbol and object symbolized, is inescapably vague. Does the hearing of the symphony on the radio occasion direct or indirect value? the hearing on records? the hearing in a small orchestra arrangement? in a piano four-hands version? and so finally, in a musician's imagination? (We may recall in this connexion Hume's distinction of *impressions* and *ideas.*) For all practical purposes, at any rate, the decision rests in each case on convenience.

d. It appears evident that to judge that z "has" actual *indirect* positive terminal value for x is equivalent to the judgment that symbol-of-z "has" actual *direct* positive terminal value for x, that is, x feels present, immediate P in his relationship to the symbol of z. In dealing with ordinary valuations and value behavior the latter would be a less desirable manner of expression, since it makes less clear the dependence of the occurrence of value ultimately on z itself. But in giving an axiological account of such behavior as "daydreaming," living in a phantasy world, it might be the better manner, since then it would suggest that, for such an x, symbols themselves are sources of a higher degree of value than the objects symbolized. At any rate, it can be said that several well-defined abnormal types of individuals live in a world of indirect values or a world in which the important direct values occur only in symbol contextures, these being alternative expressions of the same fact. In the example previously offered, when the lover gazes at the be-

loved's portrait, she "has" for him actual indirect positive terminal value. There are those whose amorous life is so circumscribed that by far the greater value, if not all, which they find in it is of this indirect terminal character, the terminal value itself never becoming direct. We may recollect Dante Alighieri and Beatrice Portinari.

VIII. ACTUAL INDIRECT INDIFFERENCE TERMINAL VALUE

1. x is unmoved one way or the other at the thought of listening to a symphony (z); from implicit behavior, such as the manipulation of the subvocal symbols, "if I hear the symphony," x derives indifference affectivity (that is, upon introspection he can report no noticeable degree either of P or U); I occurs in the relational contexture determined by the reaction of x to a symbol of a symphony ("z"); the symphony (z) "has" actual indirect indifference terminal value for x.

2. A cat (x) smells meat (z) and behaves in a manner which indicates indifference (I); the smelled meat (z) "has" actual indirect indifference terminal value for x (equivalent to, the meat-odor, "z," "has" actual direct indifference terminal value for x). (The reader will recall what was said earlier about the odor of meat drifting about a sleeping cat.)

3. x"z"I

IX. ACTUAL INDIRECT NEGATIVE TERMINAL VALUE

1. x derives displeasure from the thought of listening to a symphony (z); from implicit behavior, such as the manipulation of the subvocal symbols, "if I hear the symphony," x derives negative affectivity; U occurs in the relational contexture determined by the reaction of x to a symbol of a symphony ("z"); the symphony (z) "has" actual indirect negative terminal value for x.

2. A cat (x) smells medicine (z) and behaves in a manner which indicates unpleasantness; the smelled medicine (z) "has" actual indirect negative terminal value for the cat (x).

3. x"z"U

a. The medicine also has positive *utility* for the cat—because it will probably be good for his health. But despite that fact it probably does not "have" for the cat positive instrumental value—because the cat, in the comparative simplicity of his molecular or-

ganization, is not capable of responding to the medicine as a believed intermediate means to health.

b. That this mode of value occurrence, at least for humans, is conceivably consistent with actual direct positive terminal value in a relationship between the same object and organism is not at once clear in terms of this particular example. However, the fact might be illustrated by the example of a gentleman who disliked Euripides in any extant version (actual indirect negative terminal value) but derived great enjoyment from the original Greek (actual direct positive terminal value). The opposite consistency—of actual indirect positive terminal value with actual direct negative terminal value—would be exemplified by a person who esteemed, say, J. S. Bach's organ works in orchestral disguise but disesteemed the same works in their original form. Similarly, by those who are qualified to judge, the indirect value of the *Rubaiyat* in Fitzgerald's apotheosis has been said to be greater than the direct value of the original —that is, for those capable of making the necessary responses, actual indirect positive terminal value is consistent with actual direct indifference or negative terminal value, object and organism being the same.

X. ACTUAL INDIRECT POSITIVE INSTRUMENTAL VALUE

1. x derives enjoyment from the thought ("y") of his possessing a ticket (y) to a symphony (z) to which he looks forward with pleasure; from implicit behavior, such as the manipulation of the subvocal symbols, "I have a ticket to the symphony which I like," x experiences positive affectivity; P occurs in the relational contexture determined by the reaction of x to a symbol ("y") of a ticket (y) to a symphony (z); the ticket (y) "has" actual indirect positive instrumental value for x with respect to the symphony (z).

2. A cat (x), having been doubly conditioned to respond to the opening (y) of a can of fish as an intermediate means to his eating fish (z) and to certain metallic sounds ("y") as a symbol of can-opening, exhibits behavior upon hearing such metallic sounds which can be inferred to result from positive affectivity (P); the can-opening (y) "has" actual indirect positive instrumental value for the cat (x) with respect to eating the fish (z).

3. [x"y"[y(z)] · (x"z"P)] P

where "y" (y in quotation marks) is "symbol of y" and the expression "y" [y(z)] is "the symbol of y, y being a believed intermediate means to z."

a. The ticket here "has" positive instrumental value in virtue of the fact that the symphony "has" for x actual indirect positive terminal value.

b. A common example of actual indirect positive instrumental value is the satisfaction which the vulgar derive from dreams of great monetary wealth. They have not the wealth; it is present only symbolically (hence, "indirect"). The value is "instrumental" because they derive their satisfaction from what they suppose it would *do,* that is, as an intermediate means.

Obviously the ascription of this value to wealth is quite consistent with the simultaneous ascription of, say, potential direct negative instrumental value (if the vulgar *had* the wealth they dream about, they might well find that it occasioned them a good deal of unpleasantness in virtue of certain consequences they had not foreseen), or negative utility.

XI. ACTUAL INDIRECT INDIFFERENCE INSTRUMENTAL VALUE

1. The thought of possessing a ticket (y) to a symphony (z), to which he looks forward with neither eagerness nor reluctance, leaves x indifferent; from implicit behavior, such as the manipulation of the subvocal symbols, "I have a ticket to that symphony about which I care nothing one way or the other," x experiences indifference affectivity (I); I occurs in the relational contexture determined by the reaction of x to a symbol ("y") of a ticket (y) to a symphony (z); the ticket (y) "has" actual indirect indifference instrumental value for x with respect to the symphony (z).

2. A cat (x), having been doubly conditioned to respond to the opening (y) of a can of fish as an intermediate means to his eating fish (z) and to certain metallic sounds ("y") as a symbol of can-opening, exhibits behavior upon hearing such metallic sounds which can be inferred to result from indifference affectivity (the cat, perhaps, "pays no attention" to what is going on); the can-opening (y) "has" actual indirect indifference instrumental value for x with respect to eating the fish (z).

3. [x"y"[y(z)] · (x"z"I)] I

XII. ACTUAL INDIRECT NEGATIVE INSTRUMENTAL VALUE

1. x derives displeasure from the thought of his possessing a ticket (y) to a symphony (z) to which he looks forward with the anticipation of dislike "for its own sake" (or it could be, "for the sake of" some further object, as meeting in the concert hall someone he is anxious to avoid); from implicit behavior such as the manipulation of the subvocal symbols, "I have a ticket to that symphony which I detest," x derives negative affectivity; U occurs in the relational contexture determined by the reaction of x to a symbol ("y") of a ticket (y) to a symphony (z); the ticket (y) "has" actual indirect negative instrumental value for x with respect to the symphony (z).

2. A cat (x), having been doubly conditioned to respond to the opening (y) of a medicine bottle as an intermediate means to a teaspoonful being forced down his throat (z) and to certain squeaky sounds ("y") as a symbol of the cork being drawn out (y), exhibits behavior upon hearing such squeaky sounds which can be inferred to result from negative affectivity (U); the bottle-opening (y) "has" actual indirect negative instrumental value for x with respect to the administration of medicine (z).

3. $[x"y"[y(z)] \cdot (x"z"U)]\ U$

XIII. POTENTIAL DIRECT POSITIVE TERMINAL VALUE

1. If x listens to a certain symphony (z) at a certain time (t), it is probable that he will enjoy it; the symphony (z) "has" potential direct positive terminal value for x with reference to tomorrow evening (t).

2. If a certain cat (x) eats a certain item of food (z) at a certain time (t), it is probable that he will enjoy it; the food (z) "has" potential direct positive terminal value for x with reference to one minute from now (t) (or . . . any time when the cat is hungry, etc.).

3. $(t)\ p_1x \cdot p_2z \cdot p_3(xz \supset P)$

where (t) is the time reference, extending to all three component propositions, where p_1, p_2, and p_3 are their respective probabilities, and where the arbitrary sign $\supset$ has its usual logical meaning of "if . . . then. . . ." The time reference (t) applies, of course, to the events in question but the probabilities (p_1, p_2, p_3) are present,

that is, the compound proposition is concerned with the *present* probabilities of certain events occurring at a *future* time (or *past*, as will appear presently).

a. It is not necessary to add to the propositions a clause such as, "in certain circumstances." As in all organic behavior, the factors, *stimulus, integration,* and *response* are sufficient to describe the phenomena. The object, "symphony," means a certain pattern of sounds as normally apperceived by a type organism (in these human examples, "Western cultured man"). If x is indisposed on the day for which his enjoyment of the symphony is predicted, it is not the enjoyment which fails of materialization in the presence of the symphony, but it is the "symphony" itself (the total environmental situation in question) which fails to materialize. If x went to the concert under such circumstances, he could not correctly say, "I heard the symphony but I did not, as you predicted, enjoy it." He did *not* hear (aurally apperceive) the "symphony" which was the object of the prediction. The hypothetical proposition asserting potential value has not been falsified because the antecedent, "if x listens to a certain symphony (z)," has not been fulfilled. What x experienced at the concert hall was not "symphony" but "symphony plus illness." Similar considerations would apply if x attended the concert in good health but paid no attention to the music. "To hear the symphony" means, among other things, to pay attention to it.

b. The time reference contained in all judgments of potential value must be understood as implying, not the present nature of the organism or object, but its nature at the time in question. From this and the definition of *potential value* it follows that there are four conditions which must be fulfilled before the potential value which is ascribed to a particular object with reference to a particular organism can become actual: (1) at the time implied the organism must be of such nature that it can react to the object; (2) at the time implied the object must be of such nature that it can become a stimulus to the organism (this and the preceding condition depend for their discriminatory meaning on those postulated regularities in nature which are called laws—the object and the organism must be such that, as an instance under more general laws, if they are brought together there is a very high probability of a stimulus-response contexture occurring); (3) this object must actually be

brought into a stimulus-response contexture with this organism; and (4) within this contexture affectivity of the degree ascribed must actually occur as a consequence. (In the case of potential *instrumental* value, since it depends on ultimate terminal value, we shall find that a fifth condition must be fulfilled also.)

Now before the time implied each of these conditions is only more or less *probable* of occurrence. To judge that an object "has" potential value for an organism is to assign a compound probability to the occurrence of the first, second, and fourth conditions. To judge that z "has" potential direct positive terminal value for x with reference to a certain future time means that it is judged that the compound probability of x being then capable of response to z, z being then capable of stimulating x, and of P resulting from the stimulus-response contexture is greater than 1/2. (As in mathematics, a compound probability is the product of two or more simple probabilities. A probability greater than 1/2 means that an event is more likely to occur than not.) If the compound probability just referred to was estimated at 1/2 or less, we should *not* judge that z "had" potential direct positive terminal value for x with reference to a certain future time. The implication of this statement is, that if our theory of valuation is to be heuristically useful, we must adopt a meaning of potentiality which makes it rest on probability and not on mere possibility. If it be claimed that the *probability* of the preceding conditions is irrelevant, that potential value may be judged to exist if they are merely *possible,* the result would be that absolutely every object in the universe would "have" potential direct and indirect, positive, indifference, and negative, terminal and instrumental value for absolutely every organism. For a stimulus-response relationship and a resultant affectivity is *possible,* in the bare logical sense, between any object and any organism. No doubt this is actually the case—and it is worth the recognition, especially when we presume too heavily upon our "laws of nature" concerning what may react to what—but it is the ruination of any practicable value theory.

We therefore postulate that an object is judged to "have" potential value only when it is judged that the probability of actual value under certain conditions exists. The compound probability is derived from the simple probabilities attaching to the three con-

ditions mentioned above, but it is in the great majority of cases derived in no mathematically exact manner. We have usually neither the data nor the time available for an accurate calculation of probabilities. Our value judgments are for the most part based on an intuitive response in the light of our funded experience. With the reservation that in the more important valuations we can seek the data and take the time, this ready method serves all the day-to-day occasions of life, serving those individuals best whose intuition (here another name for knowledge plus associative intelligence) is most keenly perceptive.

c. It may have been wondered why, in this analysis of the probabilities involved in an assertion of potential value, a probability of the third of the above prior conditions—namely, that the object and the organism must actually be brought into a stimulus-response contexture—has been accorded no mention. The reason is that the probability of this condition being fulfilled forms no part of the meaning intended by calling a value *potential.* We do not say that a symphony "has" potential value for x when it appears probable that he *will* go to hear it, nor that it "has" little or no potential value for x when it appears probable that he *will not* go to hear it. By the ascription of potential value to the symphony we mean only that if x *does* listen to the symphony at some more or less determinably implied time, we believe it probable that he will experience pleasantness as a consequence. Accordingly, though there are four conditions which must be fulfilled in order that potential terminal value may be actualized, there are but three probabilities implied. The type compound judgment asserting potential direct positive terminal value may then, as previously noted, be approximately symbolized by the following propositional function: $(t)\ p_1x \cdot p_2z \cdot p_3(xz \supset P)$.

All four necessary conditions to the actualization are contained in a compound judgment of this type. The third condition is expressed as a pure hypothesis in, "if xz"—"if x and z *do* enter into a stimulus-response contexture. . . ." The first and second conditions are asserted as probable: that x will be of such nature that it can respond to z, and that z will be of such nature that it can serve as a stimulus to x. If we did not regard these conditions as probable, we should not be justified in asserting potential value in the pos-

sible future conjunction of x and z. This may readily be illustrated. Why would we not say, "This pie has potential positive value for x with reference to the time a year hence"? It is not because, if the first three conditions should be fulfilled, that we doubt the probability of x's enjoying the eating. No doubt he would enjoy it. No—we do not assign potential positive value to the pie with reference to the time a year hence solely because it appears extremely improbable that the pie would then be edible. We should strongly advise against his attempting to save it, for the very reason that "it will have lost all its value." This example clearly shows that the fulfillment of the second condition is not implied as a pure hypothesis in the protasis of "if xz, then P," but is implicitly asserted as a probability. In further examples, to be given presently, the same thing will appear in the case of the first condition—that it is judged *probable* that the organism will be capable of response to the object. (In this last example of the pie we would not ordinarily doubt the fulfillment of this condition—though we *might,* since the continued existence of even a human organism a year hence is always tinged with some uncertainty.)

The fourth condition—that P should result from xz—is more or less explicitly stated in the apodosis; in the type propositional function it is quite explicit—"then it is probable that P will occur."

An important question may here be asked—important by reason of its connexion with the hedonistic account of motivation: upon what is based the subsidiary judgment that P will occur in these circumstances? As with all matters of fact, it is based on experience. The experience may be either past or present. If I judge by past experience, the basis of my inference to future P is either that with regard to similar objects I have personally felt P or that I have observed in other organisms similar to the one in question reaction behavior which I have inferred to be correlated with the occurrence of P. (The basis for this correlation inference is empathic analogy.) If *past* experience fails to provide data for an inference looking to the future, then I must perforce rely on present experience. This might at first seem an impossibility, since the object of the value judgment is a future object. In the case of most animals it probably is impossible. But the human molecular structure permits of implicit behavior, and this it is which furnishes

present experience. If I have not reacted affectively to this or similar objects in the past, I can react to such an object now by reacting to its symbol, whether visual, verbal, kinaesthetic, or other, or any combination of these. The affectivity resulting from the organism-symbol contexture I believe to represent, in a weaker form, the quality and degree of affectivity I should experience in the future in the organism-object contexture. (The symbol affectivity is not always weaker, however; it may be stronger than the object affectivity it is intended to represent—as one's foreboding of a visit to the dentist.) I am no doubt often mistaken in this foretasting of the future, but more often not. At any rate this *is* the basis for the judgment.

In the case of other organisms, if I have had no past experience of their reactions to this type of object, I can only arrive at a judgment by some process employing analogy. *I* would probably draw pleasure from this object; x appears to be a creature similar to myself in behavioral traits pertinent to the object in question; therefore x would probably draw pleasure from this object. Dogs behave in a manner from which it may be inferred that they like raw meat; cats are similar to dogs in many of their eating habits; therefore it is probable that this cat would behave in a manner from which it might be inferred that it liked raw meat. The question of the validity and verification of such inferences is a matter for logic to investigate, but the function they actually serve in valuation and motivation is the concern of axiology.

It is possible simultaneously to infer future P from past experience with a class of objects and also to infer future P from present reaction to the object symbol. Usually these inferences reinforce one another, but in some important cases they do not. These are the cases of "knowing the better and choosing the worse." We infer from past experience that Az "has" higher potential value than Bz, but the symbol of Bz, in the existing total situation, gives us more pleasure than the symbol of Az. Since this latter is what determines choice, we choose Bz, knowing all the while that Az "has" the higher potential value.

Similar are the cases involving only one object. From past experience we infer that Az will not produce P; but the symbol of Az still does produce P (the opposite inference being perhaps too weak

or too fleeting to generate a counteracting affectivity); therefore we burn our fingers again in choosing Az. Or from past experience we infer that Az will produce P; but now the symbol of Az leaves us indifferent; we therefore remain inactive, although "knowing" that to choose Az would probably result in satisfaction.

To resume the thread of our analysis—as stated, all four conditions to the future occurrence of actual value are embodied in the type judgment asserting potential value—three as probabilities, one as a pure hypothesis. Accordingly, we may speak of potential value, or the potentiality of value, as the hypothetical probability of value—that under the hypothesis of one condition, the occurrence of value is probable if the compound probability of three other conditions is greater than 1/2.

Though, in the normal meaning of the term *potential terminal value* which we adopt, the four conditions are divided in this manner between the assertoric and the hypothetical portions of the type compound judgment, it is nevertheless quite possible for them to be otherwise divided and to obtain meaningful axiological propositions. Thus if all four are placed in the assertoric mode (which is to say, the hypothetical is dropped entirely), we have a pure assertion of probability: "It is probable that at a certain time x will be of a certain character and that z will be of a certain character and that xz will occur and that P will occur as a consequence." This would not be a judgment of potential value merely; it would be a compound judgment asserting that a particular potential value *will* be actualized. This is not the kind of judgment we make when we intend only to assert potential value. When it is said, this symphony "has" potential value for x, it is not implied that it is probable that x *will* hear the symphony.

If all four conditions are placed in the hypothetical mode, the opposite result ensues: we assert no matter of fact at all—at most we imply a definition. "If at a certain time x is of a certain character and if z is of a certain character and if xz occurs and if P occurs as a consequence, then . . ."—"this would be an instance of the actualization of a potential value," is about all we can add as an apodosis.

The four conditions necessary to the actualization of potential terminal value can be placed in the assertoric and hypothetical por-

tions of the type compound judgment in sixteen different ways. The normal division and the two extremes have just been discussed. We shall not, at least in the present essay, complete the analysis by dealing with the other thirteen. The reader may be assured, however, that if he has the patience to follow them out for himself, he will find in them a good deal of axiological interest. Suffice it to append five examples of these thirteen remaining types of future value judgments:

(1) At (a given time) it is probable that this symphony (z) will retain its present stimulation nature, and if x shall have retained his taste for music and if he shall go hear the symphony, it is probable that he will enjoy it. At (a given time) it is probable that this pie (z) will retain its present stimulation nature, and if x shall have retained his taste for pie and if he will eat it, it is probable that he will enjoy it. These appear to be weakened assertions of the existence of potential terminal value—weakened because no probability is assigned that x will or will not retain his taste. We are left with little assurance that the symphony (or pie) *does* "have" potential value for x.

(2) At (a given time) it is probable that x shall have retained his taste for music (pie), and if this symphony (this pie) shall have retained its stimulation nature and if x shall go hear the symphony (eat the pie), it is probable he will enjoy it. In this form the ascription of potential value to the symphony is hardly weakened, because we have no doubt such a relatively indestructible object *will* retain its stimulative nature. But the assertion concerning the pie is considerably weakened; for the pie is perishable, and it makes all the difference in the world to the pie's potential value whether it will or will not be at the specified time capable of exerting its hunger-appeasing stimuli. We should not wish to pay any considerable sum of money for a pie of whose potential value the baker could give us no better assurance than this—and incidentally whenever we buy anything it is upon a reckoning of its potential positive terminal or instrumental value to us.

(3) At (a given time) it is probable that x will go hear this symphony (eat this pie) and it is probable that he will retain his taste for music (pie), and if the symphony (pie) shall have retained its usual stimulation nature, it is probable that he will enjoy it. This

too is a weakened assertion of potential value. The first assertoric clause is largely irrelevant to the existence of potential value; we do not count the potential value of any object at all the less because someone is likely or is not likely actually to be stimulated by it. And the hypothetical clause, at least in the case of the pie, is so material that without more than a noncommittal mention of the possibility we make but a feeble judgment concerning the existence of potential value.

(4) At (a given time) if x shall have retained his taste for music (pie) and if this symphony (this pie) shall have retained its normal stimulation nature and if x hears the symphony (eats the pie), it is probable that he will enjoy it. A very weak assertion—hardly more than the potentiality of potential value.

(5) At (a given time) it is probable that x will have retained his taste for music (pie) and it is probable that he will hear the symphony (eat the pie), and if he enjoys it, it is probable that the symphony (pie) will have retained its stimulation nature. (The significance of this judgment is left to the reader's consideration.)

d. In ordinary cases, when asserting potential terminal value of z for x, we merely *imply* the first two conditions (concerning the future character of x and z). This is because we take it for granted that the organism and the object will neither of them change so radically as not to be capable of entering into the sort of stimulus-response relationship with one another which we are talking about. In the great majority of cases and for the limited periods of future time which our value judgments generally connote this works well enough, and we are right in the interests of practicality in assuming these two conditions. But we must never wholly forget their contingency, for in some instances it is very material. Thus we may assert that a college education ten or twelve years hence "has" a high potential positive (in this case instrumental) value for a certain intelligent child. We assume that "college education" at the time specified will be similar in character to what it is at present and that the child will then be capable of being stimulated by it. But in the case of a sickly child, who is quite likely to die before the time in question, it cannot truthfully be judged that *for him* a college education "has" great potential value; not that he would derive less from it if he were capable (ten or twelve years hence) of re-

ceiving it, but that it is improbable that he will be so. Translated into monetary terms, it would not be worthwhile to invest heavily in, say, an annuity designed to render actual the supposed potential value of the college education.

This example illustrates how in several classes of cases, especially where the potential value is implied over long periods for individuals, actuarial mortality tables may be an important aid to a correct judgment. The probability of any organism remaining capable of a particular stimulation diminishes as the time reference increases, and mortality tables furnish a mathematical expression of an important aspect of such diminishing probability. There is here clearly foreshadowed the possibility and the importance of applying scientific methods, especially statistical probabilities, to important judgments of value—a proceeding which according to at least one contemporary school of philosophy is out of the question.

Thus again, if it be asserted that Homer's *Iliad* in the original Greek "has" great potential direct positive terminal value for mankind, the statement is ambiguous. If by mankind is meant only those who will in the future be capable of reading Greek, the statement is certainly true. But if by mankind is meant the great masses of men, the statement is almost equally certainly false, for the probability of the masses ever learning classical Greek is so extremely remote that it lowers the potential direct positive terminal value of the *Iliad* in the original almost to the vanishing point.

(This being the case, and according to hedonism every individual being actuated only by the potentialities of value appearing to himself, it might be wondered in what sense it could be maintained that the masses should have any regard for the preservation of the original *Iliad,* or almost the whole body of cultural objects, when these things "have" for them no potential value. How would the masses diminish their own happiness were they to destroy all these objects as ruthlessly, say, as certain religious bigots of past centuries destroyed the poems of Sappho and burned the great library of Alexandria? The answer is, that though the original *Iliad* and the like treasures "have" practically no potential direct positive terminal value for the vulgar, they do "have" even for the vulgar a very considerable potential indirect positive terminal and instrumental value. The task of mankind's culture-bearers, especially at

recurrent periods of iconoclastic hysteria, is sufficiently to persuade the masses of this fact to secure, if not their preservative cooperation, at least their almost equally preservative forbearance.)

Sometimes also, not the first (the future existence of the organism) but the second condition (the future existence of the object) is the one whose small probability lowers the potentiality of positive terminal value. We may illustrate this fact—as well as the fact that valuations are valid even concerning objects whose existence is problematical—by the following example: the lost books of Livy "have" potential direct positive terminal (and instrumental) value for historians of the future. But their potential value cannot be accounted great, for there is small probability that the lost books of Livy's history will be found and so become capable of entering into a stimulus-response contexture with any future historian. We have little doubt that future historians will continue to be interested in Roman history, so that the judgment really rests on the compound probability of the two factors—the rediscovery of the books and their power of arousing pleasurable interest. As in many judgments referring to the future, these two factors may be variously estimated and hence different assertions made as to the present potential value of the objects in question. Theoretically, a fairly definite expression of potential value should be determinable, based on probability inferences from available data; but in practice we are defeated by the supreme obstacle to all man's efforts to subject the world to rational comprehension and control—namely, the overwhelming complexity of things and relations. That even under such a discouraging handicap a definitely *useful* judgment may be made, upon which very general agreement is possible, is a more noteworthy fact than that no exact, and certainly no mathematical, judgment is feasible to which all sensible men would be constrained to assent. That a useful, and in so far pragmatically true, judgment is possible regarding the potential value of the unfortunately vanished portions of Livy's work may be verified by any skeptic's considering how much money he would be willing to risk (say in excavating at Herculaneum) in consideration of their potential value or how much personal effort he would be willing to expend. Even if his answer be none at all, he has thereby implied his *own* value judgment. Actually, I believe that most of those who

are qualified to judge in the matter would at the very least agree that on the one hand the lost Livy must be regarded as "having" *some* potential value and that on the other it cannot be thought great. This area of agreement may be as much as the case admits of, but be it so, it serves to demonstrate that, even in matters so recondite, potential value is capable of rational estimation. So much the more so, then, when extensive data are available from which to make inferences.

e. Though in making a judgment of potential value we usually but *imply* the probability of the first two conditions being fulfilled, it is only safe to do so when making a general judgment—a judgment which applies to a class of organisms or a class of objects or both. If I say, music "has" potential positive terminal value for mankind, or raw meat "has" potential positive terminal value for cats, I run very little risk of having my judgment fail of verification because of the altered character of men or cats, meat or music. The stability of classes is enormously more probable than the stability of the individual members composing those classes.

f. As has also been suggested throughout this discussion, every judgment of potential value implies a time reference. Failure to make this time reference specific, as is the case in almost all our daily value judgments, is one more fecund cause of ambiguity. As we have seen in the case of the pie or that of the college education, the time implied in the judgment may make all the difference between probable truth and falsity or absurdity. In most particular judgments the time implied is indefinite in extent but located in the near and middle future of a lifetime. In most general judgments it covers a future of indefinite extent, sometimes well beyond the limits of many lifetimes. The gist of the temporal implication probably lies in the span during which the object or the organism may be expected to retain its stimulus or response characteristics, whichever span is shorter. In the case of the pie the time implication of the judgment of potential value must be understood to extend hardly more than 72 hours, for though x may be expected to retain his capacity for gustatory response throughout his lifetime, the stimulus characteristics associated with "to eat this pie" are not likely to endure beyond three revolutions of the earth.

To the same object may thus be ascribed various degrees of po-

tential value, depending in large part on the time references. But in our most categorical judgments—when we assert without restrictive qualifications that this object *"has"* great potential value—we implicitly assume a reference to a large and indefinite expanse of future time, together with a stable type-organism (such as, mankind) and permanency of character in the object. Without such assumptions, no reasonable sweeping judgments of potential value could be made. It is this type of value judgment which is of greatest interest in ethics, aesthetics, the law, political science, and even pure science.

g. A further source of ambiguity is the terminology commonly employed in announcing value judgments. We say, z "has" *high* potential value for x, or z "has" *low* potential value for x. What is the meaning of *high* and *low* in such statements? It has been implied in the preceding discussion that high value cannot be taken to indicate simply the moderate probability of a high degree of pleasantness nor the strong probability of a moderate degree of pleasantness. The probability implied in a judgment of potential value is, as has already been stated, a compound probability, and a high compound probability (mathematically, let us say, nearer 1 than 1/2) can result from a very high probability in two or even one of the three assertoric components in the potential value judgment. We thus arrive at cases where the compound probability is the same but the probabilities of the components differ. In such cases which "has" the higher value? Shall the great probability of a moderate pleasure or the moderate probability of a great pleasure be rated the higher potential value? Shall we strive for a social ideal which has but a moderate chance of success but which would radically cure one of the world's ills, or for a more modest ideal which would leave much to be done but which may be thought likely of adoption? In a chess game shall I make this bold move, the purport of which may or may not escape my opponent's vigilance, but which if it does will win the game in one stroke, or shall I make this other move which is so subtle that my opponent surely will fail to fathom it, but which will have only a devious effect toward a favorable outcome? In many such cases where the total probabilities appear substantially equal, but where the probabilities of the certainty of the reward are divergent, it is only momentary per-

sonal temperament which determines the decision as to relative potential value, and so choice—whether the one judging be then inclined toward boldness or caution. On alternate days the same object will be judged to "have" greater or lesser potential value, depending on changes of mood.

The solution to the present question may be suggested in a monetary problem drawn from the field of elementary theory of probability. Which is worth most?—the sum of $150 which our chance of realizing is 1/2, the sum of $100 which our chance of realizing is 3/4, or the sum of $75 which (in the way of human affairs) is certain? Though the individual may choose one or another according to his mood or character, speaking mathematically the "value of the expectation" is, of course, equal in each case. As guides to practical action the several conditions prompt us to choose rationally one alternative no more nor less than the others.

I should suggest that the case is analogous with regard to degrees of potential value. The probability components are theoretically strictly analogous, though in practice it is certainly far more difficult to determine those pertaining to the occurrence of value than to such simple matters as lottery prizes. The chief obstacle in the estimation of degree of potential value is with regard to the factor corresponding to the sum of money—namely, the amount of affectivity to be expected in any particular instance.

It might, to begin with, be doubted that affectivity is amenable to quantification. This opinion, however, cannot stand against the plentiful psychological evidence to the contrary. It is an everyday occurrence within anyone's experience that pleasantness and unpleasantness are constantly being compared, weighed, and quite confidently being declared to be greater or less in degree. Though admittedly not exactly expressable in a system of integers and decimals, yet our discriminations of degrees of affectivity are notably acute. Rarely are we unable to decide the greater or lesser of two affectivities juxtaposed in attention. A great many psychological experiments in behavior support these introspective conclusions—behavior determined by the stimulated intent to observe the affective dimension of consciousness. Such an experiment, for example, is the objective determination of color preferences, one result of which is to demonstrate with a determinable degree of

probability that for persons of white stock living in the contemporary North American environment *blue* "has" a higher terminal value than any other tested color.

In an experiment of this nature the affective reaction of the individual is noted to each of, say, one hundred colors with respect to all or any (at random) of the other colors—his reactions being exhibited possibly (though not necessarily) in the form of overt verbal behavior, as "I like this much better than that," "I am not so sure, but I think I slightly prefer that to this," "This I like least of all," and so on. At the conclusion of the experiment on the individual, all of the one hundred colors will have been arranged in a sequence, extending from those least liked (or perhaps most disliked) to those which are the most decided "favorites." The result will be the possibility of asserting, on the basis of objective evidence, and with reference to the relational contextures of which this individual is the recurrent focus and these shades of color the other foci, such judgments as, "For x, cerise is slightly less pleasant than cerulean . . . burnt sienna is about as unpleasant as ochre is pleasant . . . olive green is only about half as pleasant as his favorite, cobalt blue . . . ecru is indifferent and affectively seems to stand about midway between cobalt blue on the positive extreme and magenta on the negative." (Note that although in the verbal form of these judgments the colors appear to be the subjects and the affectivities the attributes, actually the affectivities are the subjects and the colors the qualifiers: thus the first judgment might more properly be phrased, "For x, cerise affectivity is slightly less positive than cerulean affectivity." In other words, the affectivities, not the colors, are being placed in a graded series.)

The implication of such an experiment, especially when carried out *en masse* and the data assembled statistically, is, for our present purpose, that affectivity is subject to predication of *greater, less, about half, somewhat more, barely below, equal,* and so on—in short, subject to quantification. Although this one example should be sufficient to demonstrate the point at issue—that affectivity *can be* quantified—other examples could be cited. This, however, does not appear to be the place to do so. With our present *philosophical* purposes in mind, we can take this proposition as given by *psychology*. Anyone who wishes to pursue the matter may appropri-

ately be referred to extant psychological experiments bearing on the issue.

The skeptical reader may be reminded that there was a time in a not very distant past when it would have been thought incredible that quantificatory procedures could be applied to such phenomena as heat, light, color, musical timbre, atmospheric pressure, chemical transformations, group behavior, etc. The genius of those scientists who *did* succeed in quantifying these phenomena consisted not in their faith that it could be done but in demonstrating in each instance specifically *how* to do it. Such is the case with respect to quantification of affectivity: it remains for future men of genius to ferret out the specific empirical procedures.

Granted that quantification of affectivity *is* possible, it appears to take place under two aspects: *duration* and *intensity*. Duration of affectivities—the length of time during which the affectivity associated with a last means is present to an organism—seems a self-explanatory conception. This is not to be confused with the length of time the last means itself is present to the organism. For instance, for some individuals (of whom the author is one) a hearing of *Don Giovanni* occasions pleasantness of notably greater duration than that occasioned by a hearing of *Tristan und Isolde,* even though the duration of the latter work as a last means is well over half again as long as that of the former. The aspect of relative intensity of affectivities is that which it was particularly the purpose of the above color experiment to illustrate.

The other commonly alleged aspects of affectivity—certainty and uncertainty, propinquity and remoteness, fecundity, and purity—are doubtfully quantitative and, what is more important, are not aspects of *affectivity* at all; at most these are aspects of *means*. (A possible exception is propinquity and remoteness; it will be dealt with below.) For instance, take certainty. No affectivity is certain or uncertain in any degree. It either is or is not. What is certain (*sic*) or uncertain is the relation of a particular means *to* affectivity —that such and such a means is probable or improbable of occasioning a particular affectivity. For example, "The pleasures of love are uncertain," some experienced individual might say. But there is nothing uncertain either about such pleasures as *do* occur or such as do *not* occur; what is uncertain is whether a particular

affaire d'amour, considered as a last means, *will* produce pleasures—of an intensity and duration which may be thought to provide compensation for its trouble and heartache. It is the means which is uncertain—whether it be a means to aggregate positive or aggregate negative value. What we should say is, therefore, "Love is an uncertain means to pleasure," or, "The probability of a love affair being a means to aggregate positive value is not reliably high." So with the others of these predicates: all are predicable of means, not of the ends (that is, affectivities) to which the means lead. (It is a fact worthy of being commended to the reader's attention that Jeremy Bentham—reputed to be the most notable modern exponent of hedonism—should have fallen into this elementary error at the outset of his principal treatise on ethics.)

We shall suppose, then, that affectivity is, at least theoretically, susceptible to quantification with respect to any organism, whether individual or group. Though not by any technique known at present expressible in such finely discriminable units as dollars and cents, we may nevertheless, as has just been illustrated, speak with objective reference of affectivity as high, very high, low, moderate, and so on. This being so, we have all the data we need to estimate degrees of potential value. After all, the probabilities of the occurrence of the four conditions necessary to potential value are, in the ordinary circumstances of daily living, themselves not determinable with much greater precision, at least in the case of individual valuations. It then becomes a matter of convention as to what objects shall be said to "have" high, moderate, or low potential value after an observational determination has been made of the compound probabilities of their occurrence and the approximate degree of affectivity to be expected (that is, the product $p_1p_2p_3P$).

We can at any rate estimate amounts of potential value with an accuracy sufficient for most purposes of individual and social life —especially the latter, for there we are dealing with potential values which are relatively stable by reason of being determined by components resting on statistical probability. In any case we must not, to paraphrase a well-known remark of Aristotle, expect more accuracy than the nature of the subject admits of, and so in our petulant disappointment move to the opposite extreme of declaring potential values to be wholly beyond rational estimation and hence

conduct based on the expectation of such values to be a matter either of chance whim or of blind regulation by a set of arbitrary rules. Our daily conduct denies this unwarranted supposition: we cannot choose which of two concerts to hear, we cannot decide to vote for one candidate for public office rather than another, we cannot buy a cravat, we cannot select plums rather than peaches for dessert, and so on and on, without ourselves roughly estimating the degree of competing potential values. It is not often that we hesitate, after estimating the relevant probabilities and affectivities, to pronounce one potential value greater, less than, or equal to another competing one.

We shall maintain, therefore, that potential value is the more predictable by scientific means, and that group and individual conduct is the more amenable to the rationality of scientific control, just so much the more as we are able to introduce observational accuracy into estimations of the probability of occurrence under specified conditions of the components, and of the degree of affectivity involved, in any judgment asserting an individual or general potential value. (The estimation of affectivity with mathematical exactitude must probably wait until such time as its observable physiological correlates may be discovered—though even then it is hardly to be expected that such measurement could be forthcoming under other than laboratory conditions.) This is not the place for further discussion of the precise methods by which this theoretical procedure might be carried out with present resources; rather that is a question—exceeded by none in practical import—for the joint efforts of psychology, sociology, history (in so far as history is scientific), mathematical statistics, and perhaps several other disciplines.

But we are not yet wholly rid of the ambiguities latent in this terminology. High potential value is, let us say, strong probability of great positive value. But what about strong probability of great negative value? Are we to say that an object so characterized affectively "has" a very low potential value, or a high negative potential value? Certainly we say that a cobra is highly dangerous, the odor of a rose is highly agreeable, adultery is highly immoral, or a certain dwelling place is highly desirable. The adverb "highly" is commonly used as an intensifier. But as applied to the word *valu-*

able it invariably seems to imply positive value. (Common speech hardly recognizes the concept of negative values.) It would be desirable that our mode of qualifying value should in some way be based on the hedonic scale as a quantitative continuum extending from P, through I, to U. The adjectives high, moderate, and low, and their equivalent adverbs, would serve this purpose save for the conflict with set speech habits. It appears not feasible to construe, this object "has" a very low potential value, to mean, if x enters into a stimulus-response contexture with this object, it is probable that he will experience acute unpleasantness. Such an usage is not consonant also with the well-established meaning of high and low value in economics. The advisable procedure, then, appears to be to recognize the danger of ambiguity in the terms as expressions of degrees of value and to avoid it where needful by the (unfortunately more cumbersome) use of the qualifying adjectives, positive and negative. Thus indifference value will be regarded as that nebulous region between a very low positive and a very low negative value.

The remaining component in the potential terminal value proposition—the time reference—does not, contrary to possible first impression, affect the conceptions of *high* and *low* value. If a thing "has" high potential value in other respects, its value is not altered by being referred to the time a year hence, or ten years hence, or a minute from now, or the remotest age of the world. The potential value of tonight's sunset is for me no more than that of tomorrow's, save in so far as it is more probable that I shall be capable of responding to it. But the added day's remoteness does not lower the potentiality of value at the time specified. When each sunset occurs it is likely, for all we know, that the concomitant values will be sensibly equal; one sunset is as likely to be beautiful as the other. That is, at present they "have" equal potential value with respect to their times of happening.

But why, then, is it an everyday occurrence that as between two objects "having" equal potential values men almost invariably choose the nearer? Is it not because nearness increases and remoteness diminishes potential value? Not so. The potential values are, by hypothesis, equal. That which is not equal, and that upon which choice rests, is the actual indirect values which are occasioned by

the visual or subvocal symbols of the objects. These latter values are usually unequal because of the unequal probabilities of being able to enjoy the objects or of the objects remaining enjoyable. "Better one byrde in the hand than ten in the wood." Prospective time has a dampening effect on actual indirect value. We see more clearly what is nearby. The symbol "one byrde now" is all too likely to please more highly than ten byrdes in a fortnight, though, probabilities being equal, or even in this case unequal, the ten "have" certainly greater potential value than the one. Choice, however, is determined by comparison of present, that is, actual, values; potential value influences choice only in so far as it modifies felt, actual value—usually, of course, actual indirect value. To be duly influenced in one's actions by the remoter potential values, not to choose unthinkingly what is nearest to hand, is surely one of the finest and most useful traits an individual can have, and one upon which his and others' happiness most depends. But this is not our present topic. Suffice it for the present that degree of potential value is independent of its time reference.

h. Judgments of potential value are more important to us than judgments of actual value. (This may be more exactly expressed in the judgment that, judgments of potential value "have" higher potential positive value for us than do judgments of actual value.) This is because potential value, in its usual form, refers to the future, and judgments of potential value are intimately concerned in purposive behavior. For according to the postulate of hedonism, our behavior, once aroused, is directed toward the alternative of greatest pleasantness—that is to say, to the attainment of what seems the greatest positive value or the avoidance of what seems the greatest negative value—and judgments of potential value are critical, sometimes decisive, determining factors in our present choice among alternative means-objects. For in general that means will seem most pleasant which we believe to lead to the actualization of the greater potential positive value, and the means which seems most pleasant is the means which we choose and act upon.

Judgments of actual value are of importance only in the cases where the subject is another organism. We require no judgments of our own actual values; we sense them immediately. Judgments of actual value in the case of other organisms form the basis for

future inferences with regard to potential value for them. Whenever I put meat in front of this cat it behaves in a manner from which, essentially by empathic analogy, I infer the occurrence of P in the stimulus-response contexture in which the cat is focal; I infer that the meat "has" actual positive value for the cat; and this becomes a basic justification for my subsequent general judgment that for cats meat "has" potential direct positive terminal value.

i. This brings us to the matter of the criteria of truth in value judgments. The first thing to observe is that the *fact* of value occurrence is not subject to qualifications of truth or falsity but only *judgments* asserting or denying such occurrences. All knowledge must reduce finally to immediate experience, not further analyzable, and for which it is perfectly vain to ask or seek any more basic evidential support. Axiological knowledge is no exception. It finds its unquestionable starting point in the occurrence of affectivities in certain sensitivity patterns. These occurrences are neither true nor false; they simply occur, and it is senseless to ask whether they *should* occur, or whether they are *real,* or *valid,* or *justified,* or *illusory,* and so on.

But the moment a *judgment* is formed, even implicitly, the question of truth and falsity becomes germane. Like all other judgments as to matters of fact—and it is one of the prime theses of this essay that judgments of value *are* judgments of fact—value judgments must ultimately rest on inductive probability inferences from masses of immediate data.

On the deeper logical and epistemological issues involved I do not at present care to take sides, such matters being beyond the scope of this work. A few further remarks must suffice.

A judgment of actual value must be corroborated by behavioral analogy with the judger's personal experience. It can never be confirmed directly because it is impossible to experience another organism's experience. In the case of other human beings the behavior on which the analogical inference is based is threefold: spontaneous, overt behavior on the part of the subject, and symbolic behavior induced by appropriate stimuli on the part of the subject and on the part of other persons. In a certain situation I observe that x's leg is broken, that he is emitting certain sounds, that he is writhing in an ineffectual manner, that his facial muscles

are contorted in a certain way, that tears are flowing from his eyes, and so forth. Past experience has taught me that these, or closely similar, activities have been correlated with the occurrence in my own experience of intense pain and extreme U. By empathic analogy I infer that x is now feeling intense pain and extreme U. I stimulate him to appropriate reaction by uttering the sounds, "How do you feel?" In response he utters the sounds, "I am in great pain." I have formerly used substantially the same sounds to denote the occurrence in my own immediate experience of pain accompanied by extreme U. By linguistic analogy I again infer the occurrence of extreme U in the x-broken leg contexture. This I consider to be partial corroboration of my original judgment. Turning to several bystanders, I stimulate them to appropriate reaction by uttering the vocalizations, "x is suffering badly, is he not?" Their responsive vocalizations I observe to be, "He certainly is," "Obviously," "He should be given morphine," and the like. Again by linguistic analogy, I infer that all the spectators present also believe x to be experiencing U. This I take to be final corroboration of my judgment of actual direct negative terminal value. Though based on indirect and tenuous inferences, all by analogy, it is difficult to see either what further confirmation could be expected or, for practical purposes, required. True, x may have been shamming all the while; in many cases (less obvious than broken legs) people do sham and so purposely induce false value judgments concerning themselves. But such a possibility must also be allowed for in employing the observable data as the bases of the inference. Though this may lower the final probability, it cannot invalidate the inferential process.

In the case of organisms other than human beings the inference to actual value is still more tenuous, but not less useful. Here the behavior from which the inference is made is only twofold: spontaneous overt behavior on the part of the subject and symbolic behavior, induced by appropriate stimuli, on the part of other human beings. I observe a car to run over a dog; the dog's hind leg is bent at an unusual acute angle; blood flows; the animal emits certain long-drawn, high-pitched sounds, very unlike the usual canine noises; he writhes in an ineffectual manner; his jaw hangs open; his eyes flow with tears; and so on. The analogies between

normal canine and human behavior are so many and so strong, and the analogy between this behavior and that in the last example and my own behavior under resembling circumstances is so close that, supported by empathic affectivity, I infer the occurrence in the dog of intense pain and extreme U. This inference I consider corroborated by others expressing the same judgment, in the manner indicated above. Once again, though the dangers of false analogies must always be recognized, I can see no reason to doubt the pragmatic truth of inferences of this nature. Contrary to the arguments of a certain school of extreme behaviorists, I should not hesitate to think that anyone who could look upon an animal in such circumstances, exhibiting all the signs of intense suffering, and yet refuse to draw the immediate inference that a strongly affective negative event was occurring in the relational contexture of which the animal was one focus, probably resembling closely the combination of pain and unpleasantness of which I have had personal experience—I should not hesitate to think such a person *ipso facto* as much a fool as one of those philosophers whose a priori assumptions compelled them to regard all animals as mere automata. The analogical evidence—biological, physical, chemical, psychological, —in a case like this is overwhelming. Not to allow of such inferences seems to be a species of extreme anthropocentrism, if not the madness of solipsism.

Other cases admittedly may permit only of much weaker inferences: that P occurs when a cat laps milk; that U occurs when a fish is caught on a hook; that P is present when rain falls on a plant after a drought; that U is present when acetic acid is introduced into a drop of water in which paramecia are circulating. There is no definite limit to the region of such affectivity inferences; this fact is one of the strongest arguments in favor of some sort of hylozoistic attitude. Axiology is thereby given a scope and unity of conception which is of the highest heuristic value and which raises the discipline to a central position among all intellectual pursuits. Though the inferences, when carried in this way from the "organic" into the "inorganic," progressively lose analogical force, the data likewise grow simpler and less liable to confusion. In so far as we can infer affective events analogically from the behavior

of the paramecium, there is little doubt which of the actions in its limited repertoire should be correlated with P, I, or U.

A judgment of potential value, since it refers to future time, must await the future for its corroboration. And then, except with regard to myself, the events which corroborate it are judgments of actual value. From past experience I judge that meat "has" potential positive value for my cat, i.e., that if at some particular time in the future I give the cat meat, P will result. The following day I give the cat meat. Behavior ensues from which, as above, I and others infer the occurrence of P. I consider my judgment of potential positive value to be corroborated. It is important to note, however, that it is so only in so far as the new judgment of actual positive value is itself corroborable.

In the case of potential value judgments pertaining solely to myself, they are of course corroborated not by a future judgment but by the actual occurrence of value. I judge that tomorrow's symphony "has" for me potential positive value. I go to hear it. In the resulting contexture I experience P—an occurrence about which I cannot be mistaken. Yesterday's potential value judgment is, I consider, corroborated. With increased assurance I again judge that the symphony "has" potential positive value for me with respect to some more or less definite future period. With increased assurance also I judge that it "has" potential positive value for others whose general cultural behavior is sufficiently like my own to support an analogical inference.

It is to be noted that judgments of potential value are almost always neither completely confirmed by a personal affective event or a corresponding judgment of actual value, nor completely demolished by an opposite event or a contrary judgment. Each but raises or lowers, respectively, the probability of the potential value judgment. For one thing, a corroborating actual value judgment, or the contrary, can itself only be probable. And secondly, most judgments of potential value have by implication an indefinitely continuing time reference. When I judge that the symphony "has" potential value for me or meat for my cat, I do not ordinarily mean only upon the very occasion when I shall hear the symphony nor just at the moment when the cat gulps the meat down. Therefore,

the occurrence of P in connexion with either of these events neither proves nor confirms, but only corroborates, that is, renders more probable, the truth of my judgment of potential value.

This is still more obviously the case with regard to general judgments of potential value, or judgments of potential value when including as components any general terms. The judgment that the trait of selfishness "has" potential direct negative instrumental value for all men with reference to their whole future lives is not disproven by an instance of a particular individual habitually practicing selfishness and being happy despite the habit. Nor is the judgment disproven by the citation of a number of instances. It could be disproven only by statistical compilations which would indicate that rather more than half of mankind has the trait of selfishness and derives positive value from the fact, or that the nature of man is likely to alter radically in the foreseeable future, or that the effects of selfishness in that future will not be what they have in the past been. Even so, the disproof consists only in a lowered probability. Similarly, the judgment that this symphony is truly beautiful (that it "has" great potential direct positive terminal value for cultured or culturable men for an indefinite time to come) is not overthrown by one cultured individual's failure to find it so, but only by the adverse reactions of a majority of those of the highest culture. And again, this eventuality would disprove the judgment only in the sense that it would make it improbable that the symphony *is* beautiful—improbable that if a series of stimulus-response contextures were established between the object and certain organisms (cultured Western men) a large balance of P would result in a majority of cases as a consequence. (The consideration of the majority enters into such valuations only because when a group of men have reached a not further discriminable cultural level, the calculation of probabilities then rests on simple numerical proportions. Beauty is a value only for those who can feel it.)

Finally, it follows that the only judgments of potential value which can be completely confirmed are those which are strictly limited in one or more terms and which assert value only for myself. The judgment that a certain symphony "has" potential positive value for me with reference to tomorrow evening at 8:30 is completely confirmed if I attend the concert and enjoy the work

in question. The judgment that this particular (perishable) dose of medicine "has" for me potential direct negative terminal value and potential direct positive instrumental value with reference to the time I take it is completely confirmed if at that moment I experience U in its bitter taste and P in the belief that it is a means to a regained state of health. It is evident, however, that this class of potential judgments is a relatively narrow one, though not unimportant to each individual's private conduct. Hence it may be said as a general rule that value judgments are not subject to complete confirmation or disproof, but only to alterations of probability. In practice, however, this fact impairs only the facility and not the fundamental validity of judgments of potential value as the foundation of purposive behavior, both practical and theoretical.

j. At the risk of undue repetition, it should once more be made explicit that neither actual nor potential value is a quality of any object. No object *has* value. The tendency to "objectify" value arises because in the experience of each individual he (the organism) regards himself as the constant factor in the value relation and value appears to vary concomitantly with the variable factors to the relation, the objects. Value comes to be associated with an object even in its absence, in the same manner as its proper qualities —hardness, redness, circularity, and the rest.

To say that an object *has* actual value is to assert that affectivity is occurring in the stimulus-reaction contexture determined by the object and a specific organism. But to say that an object *has* potential value is neither to assign a quality to the object nor to assert the present occurrence of any affectivity. It is a judgment declaring the hypothetical probability of actual value with respect to an organism, an object, and a more or less definite future time.

In discussing axiological matters it is, to be sure, convenient to use expressions which ostensibly attribute values to objects—for example, a diamond bracelet *is* valuable; men *have* certain inalienable rights; this Hiroshige print *is* beautiful; the dignity *of* the individual; *Der Hirt auf dem Felsen is* a greater song than *Ah, vous dirai-je, Maman;* murder *is inherently* wrong; aristocracy *is* a better form of government than democracy; raw oysters *are* good; Khumbaba *was* not as eminent a ruler as Hammurabi. But if these are taken to be other than elliptical expressions, that is, are taken

as implying some absolute value as a quality of objects, the result can only be hopeless confusion—the same confusion which has vitiated most axiological discussion, whether explicit or implicit, in more than two thousand years of philosophy and which leads to ever deeper confusion the more diligently the discussion is pursued under such assumptions. Therefore, though recognizing the convenience, linguistic naturalness, and economy of expressions of this sort, we must never be misled by mere verbalisms into supposing that they represent accurately the axiological structure of things, but must ever be prepared, especially at critical points in the argument, to translate them into the more exact terminology of stimulus-response contextures, along the lines of the analysis set forth in the preceding pages.

k. As has been hinted, there is no reason why the time reference in potential value propositions need be restricted to the future. If it is expressed or implied in a tense referring to the past, we then have propositions which state the probability that, given certain conditions, value *would have occurred.* For example, if he had heard the symphony, he would have enjoyed it; if he had eaten the pie, he would not have liked it; if Marcus Porcius Cato had read the poems of Sappho, it is doubtful that he would have cared for them; if Alcibiades had not mutilated the Hermai, he and Athens would have been better off; our friends would have gotten more pleasure from their hunting trip if they had had ten-gauge instead of twelve-gauge shotguns; if the cat had drunk the milk while it was still warm, he would have relished it more.

It is, or will become, evident that this "past potential" value may be asserted in all the twelve modes possible to "future potential" value. The abstract forms of the propositions are identical except for tense. Example: with reference to a certain past time, it is probable that x would have been of a certain character, and it is probable z would have been of a certain character, and if z and x had entered into a stimulus-response relationship, it is probable that P would have occurred in the contexture as a consequence.

l. Before proceeding with our analysis of the remaining eleven basic forms of value judgments, we may by way of summary conclude this section (XIII) with a few remarks concerning the logical skeleton beneath the type judgment of potential direct terminal value. Setting aside the probability factors, to assert the existence

of such a value is to assert the compound conjunctive-hypothetical proposition (consisting of three conjuncts, the third of which is a hypothetical proposition),

$$(t)\ x \cdot z \cdot xz \supset A$$

where A is affectivity (either P, I, or U). In words the assertion may be outlined as: "At a certain time, organism and stimulus and (if organism-stimulus, then affectivity)."

Each component proposition is a *necessary* condition to potential value, for

$$(\sim p \vee \sim q \vee \sim r) \supset \sim s$$

or

$$s \supset (p \cdot q \cdot r)$$

and the compound proposition is the *sufficient* condition to potential value, for,

$$(p \cdot q \cdot r) \supset s$$

or

$$\sim s \supset \sim (p \cdot q \cdot r)$$

(In the above functions p, q, and r stand for the three component propositions and s for the asserted potential value.)

XIV. POTENTIAL DIRECT INDIFFERENCE TERMINAL VALUE *

1. With reference to tomorrow evening's (t) concert, it is probable that x will be capable of reaction to a certain symphony (z) as such, and it is probable that z will be the same or a closely similar set of stimuli to what it has been on other occasions of its performance; and if x goes and listens to (aurally apperceives) z, it is probable that x will experience indifference affectivity (I) in the resulting stimulus-reaction contexture (xz), that is to say, that the affectivity associated with hearing z will be neither pleasant nor unpleasant in comparison with the affectivity associated (in implicit behavior) with not hearing z; in less specific terms, the symphony (z) "has" potential direct indifference terminal value for x with reference to some time in the near future (t).

2. With reference to one minute hence (t), it is probable that a certain cat (x) will be capable of reaction to a certain item of food (z) as such, and it is probable that z will be the same or a closely similar set of stimuli to what it has been on other occasions of its

* The technical material from this point to p. 111 (paragraph a.) may be skipped by the non-technical reader.

being reacted to, and if x and z are brought together, it is probable that x will behave in such a manner that it may be inferred to experience indifference affectivity (I) in the resulting stimulus-response contexture (xz); the food (z) "has" potential direct indifference terminal value for the cat (x) with reference to a time (t) about one minute hence (when, presumably say, the cat will be satiated).

3. $(t)\, p_1x \cdot p_2z \cdot p_3(xz \supset I)$

a. We may mean to imply that x will never care for this symphony, in which case the judgment would be amended to assert, "with reference to any future occasion falling within x's lifetime." This type of judgment of potential direct indifference terminal value must, however, be distinguished from a judgment which simply denies any probability of direct value in the xz contexture. What is generally meant by saying that x will never care for z is that x is and probably always will be incapable of responding to z. This is not a judgment of potential indifference value, for such a judgment implies as a condition that x *is* capable of response to z. This judgment denies all potential direct terminal value, but leaves open the possibility of potential indirect value.

XV. POTENTIAL DIRECT NEGATIVE TERMINAL VALUE

1. With reference to tomorrow's (t) concert, it is probable that x will be capable of reaction to a certain symphony (z) as such, and it is probable that z will be the same or a closely similar set of stimuli to what it has been on other occasions, and if x goes and listens to (aurally apperceives) z, it is probable that x will experience negative affectivity (U) in the resulting stimulus-reaction contexture (xz); in less specific terms, the symphony (z) "has" potential direct negative terminal value for x with reference to some time (t) in the near future.

2. With reference to a time (t) about one minute hence (as long as it takes me to get the bottle open and present a spoonful to the cat's mouth), it is probable that a certain cat (x) will be capable of reaction to a certain medicine (z) as such, and it is probable that the medicine (z) will be the same or a closely similar set of stimuli to what it has been on other observed occasions, and if the medicine (z) is poured down the cat's (x's) throat, it is probable that x will

behave in such a manner that he may be inferred to experience negative affectivity (U) in the resulting stimulus-response contexture (xz); the medicine (z) "has" potential direct negative terminal value for the cat (x) with reference to a time (t) about one minute hence.

3. (t) $p_1x \cdot p_2z \cdot p_3(xz \supset U)$

a. As in the case of potential direct positive terminal value and the corresponding actual values, the positive and negative affectivities are determined relatively to other affectivities and are subject to quantification—it is probable that x will experience strong (moderate, slight) negative affectivity.

b. In both examples, the ascription of potential direct negative terminal value to the objects is quite compatible with the simultaneous ascription of other value forms—say, potential direct positive terminal value to the symphony (with reference to the time *one year hence,* it is probable that if x hears the symphony, he will then have learned to enjoy it) and, say, potential direct positive instrumental value to the medicine (having made a practice of following the administration of the medicine to the cat by the bestowal of a juicy chunk of raw meat, the cat, although it will probably not enjoy the medicine for its own sake, *will* enjoy it is an intermediate means to securing the expected dessert). As positive and negative value cannot occur simultaneously in the same organism, we must suppose either that one or the other value would predominate, blotting out its rival, or that they would occur in close alternation. The latter alternative would in this instance be evidenced by uncertain behavior on the part of the cat—backing and filling, approaching the medicine and withdrawing from it, and generally appearing undecided, "torn by conflicting desires."

Likewise, as we have seen, the ascription of potential direct negative terminal value (or any other form) is entirely consistent with the simultaneous ascription to the same object of any variety of *utility,* positive or negative.

XVI. POTENTIAL DIRECT POSITIVE INSTRUMENTAL VALUE

1. x will enjoy having this ticket to the symphony; with reference to a time between the present moment and the hour of the concert, (first) it is probable that x will be capable of responding to this

ticket (y) as an intermediate means to hearing a certain symphony (z), and (second) it is probable that y will be capable of being a stimulus in its normal character of "a means to z," and (third) it is probable that at the time when x possesses y, z will "have" for x actual indirect positive terminal value, and (fourth) if x accepts, buys, steals, or otherwise acquires and responds to y, then it is probable that positive affectivity (P) will occur in the stimulus-response contexture, xy(z); in less precise terminology, the ticket (y) "has" potential direct positive instrumental value for x with respect to a certain symphony (z) and with reference to some time between now and the concert. (The first and second assertoric conditions express the probability that x and y, respectively, will *be* at the specified time the entities which are referred to in the fourth, the hypothetical, condition.)

2. A cat (x), having been conditioned to respond to the opening (y) of a can of fish as an intermediate means to his eating fish (z), with reference to a certain future moment (t), (first) it is probable that the cat (x) will be capable of responding to the can-opening (y) as a means to fish (z), and (second) it is probable that the can-opening (y) will be capable of being a stimulus in its normal character of "a means to z," and (third) it is probable that at the time when the cat (x) is confronted with the can-opening (y), the fish (z) will "have" for x actual indirect positive terminal value (that is, various visceral, glandular, ductile, and kinaesthetic symbols of the fish will be accompanied by positive affectivity—the cat will be hungry and anticipate the fish with eagerness, perhaps actually smelling it), and (fourth) if the cat (x) is confronted with the can-opening (y), then it is probable that the cat (x) will exhibit behavior which can be inferred to result from positive affectivity (P) in the stimulus-response contexture [xy(z)]; the can-opening "has" potential direct positive instrumental value for the cat with respect to eating fish and with reference to some time when the cat has been without food for several hours.

3. (t) $p_1x \cdot p_2y(z) \cdot p_3(x\text{"}z\text{"}P) \cdot p_4[xy(z) \supset P]$

a. The necessity for including the first assertoric condition in the judgment concerning the value of the ticket will become clear by the consideration that, for instance, for a cat it would not, by inference from experience, be true. It would be extremely improbable

that our cat would be capable of responding to a ticket as a means to a symphony. And if the probability does not exist for every organism, then in making a value judgment concerning a particular organism, the probability must be specifically asserted or implied. Similar considerations obtain in the example of the cat and the fish.

b. In the example of the concert the second assertoric condition does not appear of much moment, for there is little probability of any alteration in the ticket as a stimulus object. But, as we have seen, in the case of mutable objects, the truth of the entire judgment may hinge on this condition. A man possesses a fine carving knife; he intends to leave it as an heirloom to his son; he believes (makes the implicit value judgment) that his son will enjoy having the knife. The truth of the judgment depends primarily on this condition—the probability that at the time of transfer the knife is still an object capable of efficiently cutting a roast. It might well be worn out and useless. If that eventuality is highly probable, then no matter what the probability of the other conditions to the actualization of the asserted value, the knife as a matter of fact "has" very slight potential direct positive instrumental value for the son. Such considerations are of particular importance in moral judgments; as we shall see, the validity of an assertion of *ought* hinges largely on the probability of certain actions being intermediate means to certain last means (that is, having potential utility).

c. The third assertoric condition was not met with in our discussion of potential *terminal* value; it was not germane. But in judgments of potential *instrumental* value it is a necessary condition. The generic reason for this is that an instrumental value is derivative; it depends for its existence on the prior existence of a terminal value. No intermediate means "has" any value *as a means* unless the object to which it leads "has" value. In this case, no one would value the ticket as a means to hearing a concert unless the concert itself were thought to be of value. Nor would the cat take pleasure in the metallic sounds of can-opening did he not joyously anticipate the fish to follow.

Therefore it is a condition to the truth of an assertion of potential direct instrumental value "in" a thing that at the time the thing "has" actual direct instrumental value, the object to which it is a

means shall "have" actual indirect terminal value, which is to say that, though not yet existing, the anticipation of the object in symbolical form shall "have" value. In the case of the concert again, the judgment can only be true if at the time x comes to possess the ticket, he shall then anticipate with pleasure hearing the symphony; that is to say, at this future moment the symphony must "have" for x actual indirect (because the music is still to be performed) positive terminal (or conceivably instrumental) value. (The anticipation need not be *conscious,* however. It cannot be too strongly emphasized that consciousness is not an essential condition to the existence of any form of value. Does the cat "consciously" anticipate the fish? The question is irrelevant and as good as meaningless, for there exists no operational means of arriving at an answer.)

Now if the symphony must "have" this *actual* value at a future moment, it must "have" a corresponding *potential* value at the time of the original judgment, that is, the third assertoric condition might have been stated in the form, It is probable that z now "has" for x potential indirect positive terminal value with reference to the time when x possesses y.

One more of the myriad pitfalls in this subject of value judgments must be avoided at this point by noting that it would be incorrect to state the third assertoric condition thus: It is probable that z "has" for x potential *direct* positive terminal value with reference to the hour of the concert. For the occurrence of instrumental value upon x's becoming possessed of the ticket depends only on his *anticipation* of enjoying the concert, not upon any probability that he *will* enjoy it when he hears it. It is his *anticipation* of enjoying the concert which, so to speak, reflects P back upon the ticket in his possession and so "gives" it instrumental value, that is, at this moment the symphony (z) "has" for x actual indirect positive terminal value. Now though x *anticipates* enjoying the symphony, it may well be the case that he probably *will not* when he is actually seated in the concert hall—that at the moment of possessing the ticket the symphony "has" for x potential direct negative terminal value with reference to the time of the concert. The coexistence of these two divergent values in the xz contexture is quite consistent. (This possibility, along with certain others, was indicated in the discussion of *actual direct positive instrumental value* in section IV.)

Since the existence of these two values is consistent at the time when x possesses the ticket and finds actual direct positive instrumental value "in" it, to assert their probability at a time before x possesses the ticket cannot be inconsistent. Along with the original judgment under discussion (that the ticket "has" potential direct positive instrumental value for x with respect to a certain symphony), we may therefore also judge that the symphony itself "has" both potential *indirect positive* terminal value with reference to the moment when x possesses the ticket and potential *direct negative* terminal value with reference to the hour of the concert. As this latter judgment is consistent with the other conditions of the case, it cannot be a necessary (third) condition to the original judgment that the symphony "has" for x potential *direct positive* terminal value with reference to the hour of the concert. Therefore the only necessary third assertoric condition to the truth of the original judgment is, as stated, that it should be probable that the symphony "has" for x potential *indirect positive* terminal value with reference to the time when x possesses the ticket. *Q.E.D.*

d. It follows from our discussion of *actual indirect positive terminal value* that alternative expressions for the third assertoric condition in this judgment are: instead of, It is probable that at the time when x possesses y, z will "have" for x actual indirect positive terminal value, we may say, It is probable that at the time when x possesses y, a symbol of z will "have" for x actual direct positive terminal value; and instead of, It is probable that z "has" for x potential indirect positive terminal value with reference to the time when x possesses y, we may substitute, It is probable that a symbol of z "has" for x potential direct positive terminal value with reference to the time when x possesses y.

e. Let us now suppose, as we did in our discussion of *actual direct positive instrumental value* (IV), that the ticket in reality is for the circus and not for the symphony. How is the judgment of potential direct positive instrumental value thus affected? It is not affected at all; for so long as the first assertoric condition remains probable —that x will be capable of responding to this ticket as *an intermediate means to hearing a certain symphony*—the judgment will remain correspondingly probable. The fact that the ticket is actually for the circus, so long as it is probable that x will not be aware

of that fact, has nothing to do with the case. *His* values will be determined solely by what *he* responds to. Thus, though it may have the air of a paradox, it is not inconsistent to assert that a ticket to a circus "has" for x potential (or actual) direct positive (indifference, negative) value with respect to a certain symphony and with reference to some time prior to the concert.

But since it is almost certain that when x tries to use his circus ticket to enter the concert hall he will not succeed and will then become enlightened (if not before), we can also assert several other judgments, among which are: this ticket does *not* "have" potential direct positive instrumental value for x with respect to a certain symphony and with reference to the time subsequent to x's enlightenment on the nature of the object; this ticket *does* "have" potential direct negative (indifference, positive) instrumental value for x with respect to a certain circus and with reference to this same time; the circus "has" potential indirect negative (indifference, positive) terminal value for x with reference to this same time; etc.

XVII. POTENTIAL DIRECT INDIFFERENCE INSTRUMENTAL VALUE

1. x will be indifferent to having a ticket to the symphony; with reference to a time between the present moment and the hour of the concert, (first) it is probable that x will be capable of responding to this ticket (y) as an intermediate means to hearing a certain symphony (z), and (second) it is probable that y will be capable of being a stimulus in its normal character of "a means to z," and (third) it is probable that at the time when x possesses y, z will "have" for x actual indirect indifference terminal value, and (fourth) if x accepts, buys, steals, or otherwise acquires and responds to y, then it is probable that indifference affectivity (I) will occur in the stimulus-response contexture, xy(z); in less specific terms, the ticket (y) "has" potential direct indifference instrumental value for x with respect to a certain symphony (z) and with reference to some time between now and the concert.

2. A cat (x), having been conditioned to respond to the opening (y) of a can of fish as an intermediate means to his eating fish (z), with reference to a certain future moment (t), (first) it is probable that the cat will be capable of responding to the can-opening (y) as a means to fish (z), and (second) it is probable that the can-open-

ing (y) will be capable of being a stimulus in its normal (conditioned) character of "a means to z," and (third) it is probable that at the time when the cat (x) is confronted with the can-opening (y), the fish (z) will "have" for x actual indirect indifference terminal value (the cat will be replete and anticipate more fish with disinterest), and (fourth) if the cat (x) is confronted with the can-opening (y), then it is probable that the cat will exhibit behavior which can be inferred to result from indifference affectivity (I) in the stimulus-response contexture [xy(z)]; the can-opening "has" potential direct indifference instrumental value for the cat with respect to eating fish and with reference to some time when the cat has had a sufficiency of food in the time immediately preceding.

3. (t) $p_1x \cdot p_2y(z) \cdot p_3(x\text{"}z\text{"}I) \cdot p_4[xy(z) \supset I]$

a. The suggestion that the cat has just eaten his fill is, of course, only part of the illustrative example. In judging that the opening of a can of fish "has" potential direct indifference instrumental value for a cat with respect to his eating the fish, the implied time reference might, for instance, be to a moment when the cat was being hotly pursued by a bloodhound. At such a moment the cat would doubtless be indifferent to the opening of any can.

Ordinarily, however, can-opening would be judged to "have" potential direct positive instrumental value for conditioned cats. When such a judgment is asserted unqualifiedly, the time reference must be understood to be all those occasions when cats are hungry, undistracted by bloodhounds, and not otherwise diverted from the normal feline patterns of behavior. In this instance the time reference would not be likely to be misunderstood. But in many other instances of value judgments its omission may lead to serious misconception and futile dispute.

XVIII. POTENTIAL DIRECT NEGATIVE INSTRUMENTAL VALUE

1. x will dislike having this ticket to the symphony; with reference to a time between the present moment and the hour of the concert, (first) it is probable that x will be capable of responding to this ticket (y) as an intermediate means to hearing a certain symphony (z), and (second) it is probable that y will be capable of being a stimulus in its normal character of "a means to z," and (third) it is probable that at the time when x possesses y, z will "have" for x

actual indirect negative terminal value, and (fourth), if x accepts, buys, steals, or otherwise acquires and responds to y, then it is probable that negative affectivity (U) will occur in the stimulus-response contexture, xy(z); in less specific terms, the ticket (y) "has" potential direct negative instrumental value for x with respect to a certain symphony (z) and with reference to some time between now and the concert.

2. A cat (x), having been conditioned to respond to the opening (y) of a bottle of medicine as an intermediate means to a teaspoonful being forced down his throat (z), with reference to a certain future moment (t), (first) it is probable that the cat (x) will be capable of responding to the bottle-opening (y) as a means to medicine (z), and (second) it is probable that the bottle-opening (y) will be capable of being a stimulus in its normal (conditioned) character of "a means to z," and (third) it is probable that at the time when the cat (x) is confronted with the bottle-opening (y) the medicine (z) will "have" for x actual indirect negative terminal value, (various visceral, glandular, ductile, and perhaps kinaesthetic symbols of the medicine will be accompanied by negative affectivity), and (fourth), if the cat (x) is confronted with the bottle-opening (y), then it is probable that the cat will exhibit behavior which can be inferred to result from negative affectivity (U) in the stimulus-response contexture [xy(z)]; the bottle-opening "has" potential direct negative instrumental value for the cat with respect to taking medicine and with reference to some time when I think good to administer it.

3. $(t)\ p_1x \cdot p_2y(z) \cdot p_3(x"z"U) \cdot p_4[xy(z) \supset U]$

a. With reference to any time after the concert, one could probably assert that the ticket "has" no potential instrumental value at all, and probably no potential terminal value either. At that time, if x reacted to it, it would probably "have" only actual direct indifference terminal value. However, if x had wanted to go hear the symphony and had forgotten the hour of the concert, then the ticket might subsequently become a means to reminding him of the oversight, with which thought U would be associated. Under these circumstances the ticket would have "acquired" actual direct negative instrumental value with respect to the memory of an unpleasant mischance. The mild possibility of such a situation "gives" the ticket now another sort of potential direct negative instrumental value.

b. The example of the cat shows clearly once again that negative instrumental *value* is quite consistent with positive *utility*. Probably never could one induce the cat to *like* the opening of the medicine bottle, because the structure of the cat's nervous system is such that he cannot be led to make any connexions between taking medicine and distant results in the way of pleasant health. Thus however great is the positive utility of the medicine and the administration of it, and however much the cat enjoys the health to which these are intermediate means, still as far as the poor cat's feelings are concerned the opening of the medicine bottle "has" for him actual and potential direct negative instrumental value.

XIX. POTENTIAL INDIRECT POSITIVE TERMINAL VALUE

1. The thought of hearing the symphony would appeal to x; with reference to a time between the present moment and the hour of the concert, it is probable that x will be capable of reaction to a symbol ("z") of a certain symphony (z), and it is probable that the symbol ("z") will be capable of being a stimulus in its normal character of "symbol of z," and if x enters into a stimulus-response contexture with this symbol of z, it is probable that P will occur in the contexture (x"z") as a consequence; in less precise terms, the symphony (z) "has" potential indirect positive terminal value for x with reference to some time between now and the performance.

2. With reference to a certain period in the future (t), it is probable that a cat (x) will be capable of reaction to a symbol (a smell, "z") of meat (z), and it is probable that the symbol ("z") will be capable of being a stimulus in its normal (conditioned) character of "symbol of z," and if the cat (x) enters into a stimulus-response contexture with this symbol of z ("z"), it is probable that the cat will exhibit behavior which can be inferred to result from positive affectivity (P) in the contexture (x"z"); the meat "has" potential indirect positive terminal value for the cat with reference to a certain future time (a time when the cat will probably be alive, hungry, undisturbed, and so on).

3. (t) $p_1x \cdot p_2$"z" $\cdot p_3$(x"z" $\supset$ P)

a. The meaning of, and necessity for, the second condition is not too clear in this concert example because the symbol-object is not perishable. But if we were to assert potential indirect value in certain other circumstances, as say "x will probably tomorrow enjoy

seeing this proof copy of his portrait," proof copies of studio photographs being quickly perishable when exposed to sunlight, the truth of the assertion or value judgment will depend a great deal on the probability that the symbol of himself will endure until tomorrow, the reference time. (This example of course assumes that x's enjoyment would be of the proof *as a symbol;* otherwise the assertion would be of potential *direct* value.)

In general, symbols are far less perishable or variable than the objects symbolized. For this reason judgments of potential indirect value are very seldom rendered doubtful by any uncertainty as regards the second assertoric condition (that the symbol-object shall remain an appropriate stimulus).

b. As we have previously suggested, to assert that z "has" potential *indirect* positive terminal value implies that the symbol-of-z "has" potential *direct* positive terminal value. But this is a less desirable mode of expression, since its ellipticity obscures the underlying axiological relations.

c. Potential indirect positive terminal value can be engendered in any number of other ways: for example, the probability that x would find enjoyment in reading about the performance in the morning paper the day after "gives" the symphony such potential indirect value. A possibility of this kind was mentioned in connexion with the discussion of *actual indirect positive terminal value* (VII).

d. The "future" time reference in this, as in other forms of potential value, is relative, as has been several times suggested. Thus we can say that for our cat certain meat "had" at some past moment potential indirect positive terminal value—presumably meat which, for some reason or other, the cat never did smell or eat during the meat's existence or his lifetime.

XX. POTENTIAL INDIRECT INDIFFERENCE TERMINAL VALUE

1. The thought of hearing the symphony would be indifferent to x; with reference to a time between the present moment and the hour of the concert, it is probable that x will be capable of reaction to a symbol of a certain symphony (z), and it is probable that the symbol ("z") will be capable of being a stimulus in its normal character of "symbol of z," and if x enters into a stimulus-response con-

texture with this symbol of z, it is probable that sensible indifference affectivity (I) will occur in the contexture as a consequence; in less specific terms, the symphony (z) "has" potential indirect indifference terminal value for x with reference to some time between now and the performance.

2. With reference to a certain period in the future (t), it is probable that a cat (x) will be capable of reaction to a symbol (a smell, "z") of meat (z), and it is probable that the symbol ("z") will be capable of being a stimulus in its normal (conditioned) character of "symbol of z," and if the cat (x) enters into a stimulus-response contexture with this symbol of z, it is probable that the cat will exhibit behavior which indicates indifference (I) occurring in the then existing contexture (x"z"); the meat "has" potential indirect indifference terminal value for the cat with reference to certain future times (times when the cat is alive and replete, disturbed, asleep, and so on).

3. (t) $p_1x \cdot p_2$"z" $\cdot p_3$(x"z" $\supset$ I)

a. Judgments of potential indifference value are probably less likely to be accurate than any of the other types, for the area of sensible indifference affectivity is much narrower than either positive or negative affectivity, though the number of things in daily life to which we react indifferently is probably greater than the combined total of those to which we react either positively or negatively. Our reactions to those objects to which we pay particular attention are, however, indifferent in only a minority of cases. They are the important objects and our reaction to them is usually either one of "being for" or "being against." So much the less then are judgments which predicate potential indifference value of these attended-to objects likely to be accurate.

b. For the human race at any rate, potential indirect indifference terminal value is probably the most frequently occurring of all the twenty-four value forms. This statement may be thought credible if we reflect that: (1) the *potential* value forms are far more frequent than the *actual,* for there are more potentialities in every organism's life than could ever be realized; (2) *indirect* values greatly outnumber the *direct,* for most of human experience occurs in and by means of symbols rather than the actual objects symbolized; (3) as above, the number of things reacted to with *indifference* affectivity prob-

ably exceeds by a wide margin the combined total of those reacted to with *positive* or *negative* affectivity; and (4) *terminal* values, arising from things reacted to "for their own sakes," surely surpass *instrumental values,* arising from things reacted to because of their supposed utility in reference to other things—the simple relation at the basis of the former as against the more complex relation of the latter would suggest this conclusion. The foregoing is, however, but the author's surmise, and if others have reason to believe some other of the twenty-four forms more frequent in occurrence, the argument of this work will be in nowise affected thereby.

XXI. POTENTIAL INDIRECT NEGATIVE TERMINAL VALUE *

1. The thought of (or, say, reading a review of) the symphony would be distasteful to x; this symphony (z) "has" potential indirect negative terminal value for x with reference to some time between now and the performance (or some time after the performance); with reference to a time between the present moment and the hour of the concert (or some time after the concert), it is probable that x will be capable of reaction to a symbol of a certain symphony (z), and it is probable that the symbol will be capable of being a stimulus in its normal character of "symbol of z" and if x enters into a stimulus-response contexture with this symbol of z, it is probable that U will occur in the contexture as a consequence.

2. With reference to a certain future time (t), it is probable that a cat (x) will be capable of reaction to a symbol (an odor, "z") of medicine (z), and it is probable that the symbol ("z") will be capable of being a stimulus in its normal character of "symbol of z," and if the cat (x) smells the odor ("z"), it is probable that he will behave in a manner which indicates the occurrence of unpleasantness (U) in the stimulus-response contexture (x"z"); the medicine (z) "has" for the cat (x) potential indirect negative terminal value with reference to a certain future time (for example, when I choose to administer the medicine, or when the bottle falls off the shelf and breaks in front of the cat's nose).

3. (t) $p_1x \cdot p_2$"z" $\cdot p_3$(x"z" $\supset$ U)

a. Another example: Pindar's *First Olympian* probably "has" for

* The technical material from this point to p. 117 may be skipped by the non-technical reader.

the masses potential indirect negative terminal value: that is, if the masses were to read it (in translation—hence *indirect* value), they would probably be bored by it (boredom being unpleasant). However, with reference to some distantly future Utopia, the ode might "have" potential direct positive terminal value, for by then perhaps the masses will be cultivated Hellenists. And if in that wondrous age the reading of Pindar in Greek were to have become a necessary condition to the exercise of political power, then it would "have" also potential direct positive instrumental value (at any rate for Utopians politically ambitious).

b. A further example: When in midwinter I look through my window and observe that the thermometer reads zero degrees, I will probably experience U. In such case, (1) the symbolized weather will then "have" for me actual indirect negative terminal value, (2) the object thermometer-reading-zero-symbolizing-weather will "have" actual direct negative terminal value, (3) the object thermometer-reading-zero (considered in itself and not as a symbol) will probably "have" actual direct indifference terminal value, and (4) the object thermometer-as-intermediate-means-to-weather-foreknowledge will probably "have" actual direct positive instrumental value.

The moment before I look at the thermometer or think about it at all it may be asserted that the thermometer "has" for me respectively potential indirect negative terminal, potential direct negative terminal, potential direct indifference terminal, and potential direct positive instrumental value. But though we often speak thus about an object (here ostensibly *thermometer*), we are now in a position to see that if the time reference is identical, then these judgments cannot all be true unless "the object" to which the organism in question reacts is in reality slightly different in each case. As the judgments of *actual* value, above, show, such is the case in this example, though in ordinary speech we should probably say in every instance, "This thermometer has. . . ." This constitutes a very slight indication of the enormous axiological confusion into which we are continually being led by the comparatively meager resources of common speech, the deceptive logical structure of ordinary syntax, and the exigencies of human intercourse.

XXII. POTENTIAL INDIRECT POSITIVE INSTRUMENTAL VALUE

1. x would probably derive enjoyment from the thought ("y") of his possessing a ticket (y) to a symphony (z) to which he would look forward with pleasant anticipation; with reference to a time (t) between the present moment and the hour of the concert, (first) it is probable that x will be capable of responding to a symbol ("y") of a ticket (y) to a certain symphony (z), and (second) it is probable that the symbol ("y") will be capable of being a stimulus in its normal character of "symbol of y," and (third) it is probable that at the time when x should react to the symbol ("y"), z would "have" for x actual indirect positive terminal value, and (fourth) if x enters into a stimulus-response contexture with this symbol ("y"), it is probable that P will occur in the contexture (x"y"[y(x)]) as a consequence; in less specific terms, a ticket (y) "has" potential indirect positive instrumental value for x with respect to a certain symphony (z) and with reference to some time (t) between now and the concert.

2. With reference to a certain period (t) in the future, (first) it is probable that a cat (x) will be capable of responding to certain metallic sounds as a symbol ("y") of a can being opened (y) as a means to his eating fish (z), and (second) it is probable that the metallic sounds ("y") will be capable of being a stimulus in their normal (conditioned) character of "symbol of y," and (third) it is probable that at the time when the cat (x) should hear the metallic sounds ("y"), the fish (z) would "have" for him (x) actual indirect positive terminal value, and (fourth) if the cat (x) hears the metallic sounds ("y"), it is probable that he will exhibit behavior from which it can be inferred (by empathic analogy) that pleasantness (P) is occurring in the resultant stimulus-response contexture (x"y"[y(z)]); the opening of a can (y) "has" potential indirect positive instrumental value for a cat (x) with respect to eating fish (z) and with reference to a time (t) in the future; colloquially, "This cat is going to jump for joy when he hears me opening this can of what he thinks is fish." (Note that in the foregoing expression the word "thinks" is a function of observed behavior.)

3. $(t)\ p_1x \cdot p_2\text{"y"}[y(z)] \cdot p_3(x\text{"z"}P) \cdot p_4[x\text{"y"}[y(z)] \supset P]$

This somewhat formidable looking expression might be read as follows: "With reference to a certain time, it is probable that x will

be of a certain nature *and* it is probable that a symbol of y, y being believed to be an intermediate means to z, will be of a certain nature *and* it is probable that in an x-symbol-of-z contexture P will occur *and* it is probable that if x reacts to the symbol of y-as-a-means-to-z, then P will occur in the resulting contexture."

XXIII. POTENTIAL INDIRECT INDIFFERENCE INSTRUMENTAL VALUE

1. x would probably be indifferent to the thought of obtaining a ticket to a certain symphony; with reference to a time (t) between the present moment and the hour of the concert, (first) it is probable that x will be capable of responding to a symbol ("y") of a ticket (y) believed to be to a certain symphony (z), and (second) it is probable that the symbol ("y") will be capable of being a stimulus in its normal character of "symbol of y," and (third) it is probable that at the time (t) when x should react to the symbol ("y"), the believed last means (z) would "have" for x actual indirect indifference terminal value, and (fourth) if x enters into a stimulus-response relation with this symbol ("y"), it is probable that indifference affectivity (I) will occur in the contexture (x"y"[y(z)]) as a consequence; a ticket (y) "has" potential indirect indifference instrumental value for x with respect to a certain symphony (z) and with reference to some time (t) between now and the concert.

2. With reference to a certain period (t) in the future, (first) it is probable that a cat (x) will be capable of responding to certain metallic sounds as a symbol ("y") of a can being opened (y) as a believed means to his eating fish (z) and (second) it is probable that the metallic sounds ("y") will be capable of being a stimulus in their normal (conditioned) character of "symbol of y," and (third) it is probable that at the time when the cat (x) should hear the metallic sounds ("y"), the fish (z) would "have" for him (x) actual indirect indifference terminal value, and (fourth) it is probable that if the cat (x) hears the metallic sounds ("y"), he will exhibit behavior from which it can be inferred that indifference affectivity (I) is occurring in the thus constituted contexture (x"y"[y(z)]); the opening of a can "has" potential indirect indifference instrumental value for this cat with respect to eating fish and with reference to certain future times.

3. (t) $p_1x \cdot p_2$"y"$[y(z)] \cdot p_3$(x"z"I) $\cdot p_4[$x"y"$[y(z)] \supset$ I]

XXIV. POTENTIAL INDIRECT NEGATIVE INSTRUMENTAL VALUE

1. x would probably be averse to the idea of securing a ticket to a certain symphony; with reference to a time (t) between the moment of assertion and the performance of the music, (first) it is probable that x will be capable of responding to a symbol ("y") of a ticket (y) as being a means to a certain symphony (z), and (second) it is probable that the symbol ("y") will be capable of being a stimulus in its normal character of "symbol of y," and (third) it is probable that at the time (t) when x should react to the symbol ("y"), the believed consequent last means (z) would "have" for x actual indirect negative terminal value, and (fourth) if x responds to this symbol ("y"), it is probable that a certain degree of negative affectivity (U) will occur in the thereby constituted contexture (x"y"[y(z)]) as a result; a ticket (y) "has" potential indirect negative instrumental value for x with respect to a certain symphony (z) and with reference to some time (t) in the interval between now and the concert.

2. With reference to a certain future moment (t), (first) it is probable that a cat (x) will be capable of responding to certain squeaky sounds ("y") as the symbol of the cork being drawn out of a medicine bottle (y) as a believed means of administering medicine (z), and (second) it is probable that the squeaky sounds ("y") will be capable of being a stimulus in their normal (conditioned) character of a "symbol of y," and (third) it is probable that when the cat (x), should hear the sounds ("y"), the medicine (z) would have for him actual indirect negative terminal value, and (fourth) it is probable that if the cat (x) hears the sounds ("y") he will exhibit behavior which can be inferred to indicate the occurrence of negative affectivity (U) in the thus constituted contexture (x"y"[y(z)]); the opening of a medicine bottle (y) "has" potential indirect negative instrumental value for a certain cat (x) with respect to being administered medicine (z) at a certain future time (t); colloquially, "This cat isn't going to like it when he hears me taking the cork out of this medicine bottle," or, ". . . out of what he will think is the medicine bottle." (Note again that the word "think" in this non-human situation is, and can only be, a function of observed behavior.)

3. (t) $p_1x \cdot p_2$"y"$[y(z)] \cdot p_3(x"z"U) \cdot p_4[x"y"[y(z)] \supset U]$

So much for the twenty-four main forms in which value occurs and respecting which value judgments may be made. There are, doubtless, a great number of subsidiary forms, the attempted enumeration of which would be a task of increasing laboriousness and decreasing usefulness. In cases where an analysis is of moment, it can now presumably be carried out on the basis of the foregoing distinctions. Even if no other notable result has been accomplished, this fairly intricate tabulation should have indicated how ambiguous is an unqualified assertion of value and have warned at least philosophers to "mind their p's and q's" when making one.

Now before leaving the present discussion of the abstract modes of value and turning in the next succeeding chapters to their exemplification in the basic ethical concepts, let us devote a modicum of time to a consideration of two related matters: the notion of what may be called *aggregate value,* and the question of the extent of the future reference in *instrumental value.*

If an object "has" instrumental value, it must also "have" terminal value (if only indifference terminal value), for if it forms with the organism a stimulus-response contexture in which occurs instrumental value, a contexture is *ipso facto* formed in which occurs either positive, indifference, or negative terminal value. That is, whatever the reaction of the organism to an object with respect to its *consequences,* it must at the same time react to the object itself (since it is by hypothesis a *stimulus* object), even if the reaction is accompanied merely by indifference affectivity.

Further, when an object "has" terminal value it frequently also "has" instrumental value of some sort, for few objects, especially actions, are so isolated that they have no perceptible consequences, and when a last means is viewed in the light of being also an intermediate means to one or several further last means, instrumental value is engendered.

Thirdly, the same object, or parts of the same object, may be reacted to in diverse ways, thus occasioning several terminal values or several instrumental values. For example, a symphony, taken as a whole, may be liked in some respects and disliked in others, thus constituting several terminal values in reaction to nominally the

same object. (It is quite possible to ascribe these several terminal values to different "objects," but as a symphony is usually considered as *a* work of art, and similarly with other things than symphonies, it is linguistically convenient to regard as several values "in" the same object what perhaps more precisely are several values in several closely related "objects." Since this is a matter of convenience only, we must be prepared at any critical point in our investigations into value propositions to revert to the less convenient but more exact viewpoint of finding "in" a single object a single value at any one time.) Another example: truth-telling, taken as a whole, may be found pleasant in respect of some of its consequences and unpleasant in respect of others, thus constituting several instrumental values in reaction to nominally the same action. (A remark exactly parallel to that contained in the preceding parenthesis applies to instrumental values.)

Altogether, therefore, any one object at any one time may "have" any of the following six combinations of values:

1. One terminal value.
2. Two or more terminal values.
3. One instrumental and one terminal value.
4. One instrumental and two or more terminal values.
5. Two or more instrumental values and one terminal value.
6. Two or more instrumental and two or more terminal values.

When an object (or, as above, a closely related group of objects) occasions any one of these combinations, from 2 to 6, we may speak of the object as "having" an *aggregate value* which is the estimated algebraic sum of its several individual value components.

That affectivities are susceptible to estimation and summation is attested to by common experience, evidenced in such verbal behavior as, "I like it in part, and in part I don't; but take it all in all, I believe the balance is slightly in its favor." Thus in general we esteem that thing of greatest value, not which is simply most pleasing in some one respect, but which, taking into account *all* the respects in which we react to it, is most pleasing *on the whole*—in a word, that thing which "has" greatest *aggregate value*. How the aggregation of component values turns out in each case is a matter of idiosyncrasy: whether a certain positive terminal value will or will not in the aggregation outweigh a certain negative instrumental

value, both being actualized in connexion with the same object, depends simply on the felt degrees of the respective affectivities. The actual process of aggregation is carried out in the temporal juxtaposition of the affectivities concerned and direct comparison between them.

The conception of *aggregate value* applies, too, in all the potential modes. Often, or perhaps usually, when a potential value is asserted, an *aggregate* potential value is implied. Thus, "I advise against your drinking this glass of usquebaugh" is an assertion of potential value and is also almost certainly an assertion of aggregate value. "If you drink this usquebaugh, it will have for you actual direct positive terminal value; but it will also have consequences such that when you experience them the usquebaugh which was their cause will acquire actual indirect negative instrumental value; and the former will be so transient and the latter so durable that, taken all in all, the sum of the affectivities which are likely to be experienced by you as consequences of the imbibing of this tawny liquid is negative; therefore, I advise you to demit the temptation."

Since instrumental value is finally dependent on the terminal value or values of consequent objects, we may conveniently consider the aggregate value of an object to be simply the algebraic summation of the terminal values connected with that object and each of its probable consequences, to any degree of remoteness. (The latter factor we shall discuss presently.) This way of looking at the matter facilitates deliberation. Shall I drink a glass of usquebaugh? In implicit behavior, responding to symbols, I act out each foreseen circumstance, experiencing in each case actual indirect terminal value: (1) The aromatic bouquet; positive. (2) The sharp taste; not so positive. (3) The bemused exaltation of my faculties; positive. (4) The good money I must pay for the glass; negative. (5) The moral disapproval of Mrs. Grundy; indifference. (6) The subsequent bad taste in my mouth; negative. (7) The subsequent headache; negative. (8) The time wasted from sounder pursuits; negative. (9) The craving to indulge again; negative. Running over these rapidly and making a ready comparison, I feel the balance to incline to the negative: that is, I feel the usquebaugh to "have" for me with reference to my present and immediately future situation an aggregate potential negative value. Therefore, being like

all creatures so constituted as to seek what appears pleasantest, from the seductive usquebaugh I refrain.

The man who does *not* refrain, under similar circumstances, is either the one whose circumspection does not extend beyond consequence (3), or, if it does, who feels in the other consequences little or no negative affectivity (very possibly, as William James suggests, because the latter consequences cannot be made to remain in his attention long enough for their hedonic tone to be savored effectively). For him, the object is felt to "have" an aggregate potential positive value. This being so, the opportunity to drink becomes an irresistible stimulus, and he drinks. These related defects—to be lacking in foresight or, as it were, in foretaste—are for the individuals so afflicted "traits of character"—that is, established modes of behaving in response to certain stimuli.

Generically, instrumental value is, as we have seen, affectivity arising in the contexture determined by an organism and an object considered as an intermediate means to certain consequences. And, as we have also seen, every object is a link in a chain of consequences extending indefinitely far into the future and the number of such consequences increases in geometrical ratio. The question then evidently arises, how many and how distant consequences affect instrumental value? The answer is simple: however many and however distant consequences the organism foresees and takes account of—a variable factor which depends in part on the character of the organism.

If but one consequence, and that the nearest to hand, is allowed to determine instrumental value, we say that the organism is lacking in circumspection. An object is judged, perhaps, to "have" positive instrumental value in the light of its one foreseen consequence, whereas in retrospect, after other consequences have affected the organism, it will be felt to have "had" negative instrumental value. The habit of judging instrumental values in the light of only the nearest consequence, like the parallel habit of recognizing only terminal and no instrumental value at all in an object which does have axiological consequences, is one of the most pernicious traits of human nature. Between the two, these habits account for a great part of the "evil" in the human, and indeed the organic, world. The

criminal is the man who, in important matters affecting his fellow men, figuratively cannot see beyond the nose on his face. Hastily judged instrumental values provide his motives to action and inconsiderate terminal values are his standards of worth. The rationale of society's efforts to reform the criminal, the boor, the selfish—and for that matter the timid and the rash, for whom also instrumental value is determined by only the proximate consequences—or through education to prevent their development, is to implant the opposite habits of determining instrumental values by more remote and extensive, as well as immediate, consequences, and of recognizing that many or most objects which "have" terminal value should be considered in the light of their instrumental value also. (The Socratic principle that virtue is knowledge is once more implied in new terms.)

That *expediency* which is the prevailing rule of conduct in international affairs, and which renders international morality lower even than the average of private morality, is another instance of the subject under discussion. For to be guided by expediency means essentially to find the actualization of a particular intermediate means attractive—that is, to experience compelling instrumental value in it—because it is recognized as leading to a result in the near future thought to be immediately productive of satisfaction to the acting group (in contemporary international affairs the nation or bloc). This manner of acting is contrasted with that which is said to be guided by *principle*—that is, finding the actualization of a particular intermediate means attractive because it is recognized as an instance under a general rule of conduct, which rule, as grounded in the past experience of the race, indicates those modes of behavior which in certain circumstances are most probably productive of long-range, aggregate value, both to the individual or group directly and to the individual or group through the near and remote reactions of other individuals and groups. *Expediency* considers a particular expected advantage, *principle* a general, long-term advantage; the latter seeks advantage through advantage to others, knowing such advantage to be more certain and secure, the former seeks advantage with or without advantage to others; the latter considers an indefinite range of consequences following upon a particular intermediate means through an extended future, the former con-

siders but one general consequence following upon a particular intermediate means and that in the near future. The contrast is that between valid and faulty induction. A *principle,* just in so far as it can be called moral, expresses the result of an inference based on an indefinitely large sampling of probable consequnces following upon type choices in problematic situations; *expediency* infers the desirability of a choice on the basis of a single selected sample—and that, too, selected by interest. (Compare the accurate if now somewhat old-fashioned term, "an unprincipled scoundrel"—that is to say, one whose actions are governed by narrow expediency and who therefore cannot be counted on to consider the interests of others as a matter of stable principle. In this sense every political regime in the world has been and is "unprincipled.")

The results of expediency as practiced in international affairs—and in national affairs as well—are painfully evident; the sorry chronicle of war, economic competition, bad faith, suspicion, treachery, mutual hurt, and so on and on need not be recited here. Suffice it to say that expediency as an habitual and hypocritically or cynically accepted rule of conduct, national or international, establishes the probability of the accrual of disvalue throughout a future of indefinite extent, for the basic logical and axiological reasons stated above: because every intermediate means has multiple affective consequences and habitually to allow one's instrumental values to be determined by one specific and near consequence is to court hurt or disaster by reason of the fact that certain of the other, unregarded, consequences will have effects on other parties which will provoke them to retaliation on the one who deliberately actualized the "expedient" intermediate means. Not infrequently such retaliation is delayed for, or extends over, centuries; ὀψὲ θεῶν ἀλέουσι μύλοι, ἀλέουσι δὲ λεπτά. Specific examples from history's sorry page are of too easy exhibition. The Athenians thought it expedient in 416 B.C. to slaughter the inhabitants of Melos; the deed, as Xenophon tells us (*Hellenica* II.ii.3), returned to haunt them. The Romans found it expedient to drain the provinces of their wealth and manhood; the later consequences of the despoliation were one of the principal causes of the collapse of the Roman empire. The British found it expedient in the sixteenth and seventeenth centuries to treat Ireland in a barbarous manner and the Irish found it

expedient to retaliate with even more savage barbarity; the baneful consequences are still unfolding in our day. In 1613 Spain completed the expedient act of expelling the Moriscos and Jews; Spain has never recovered from the loss and remains today the most backward nation in western Europe. Adolf Hitler thought it expedient to consolidate his power by murdering any articulate opposition; the Nazi state lives only in the most infamous pages of the world's history. In 1937 the United States of America considered it expedient to refuse help to the elected government of Spain while giving clandestine support to the forces of military and clerical reaction; it may be doubted whether our great-grandchildren will have witnessed the last unhappy effects of this unconscionable behavior.

It may be said that the results of these policies show them to have been actually inexpedient and that therefore they constitute no argument against real expediency. But such an objection could be lodged against any examples of expediency—*after* the long-range effects have become apparent. No; the cited policies were considered expedient *at the time* and they were adopted in disregard or despite of moral and political principles acknowledged in the abstract. The unfortunate results precisely support the judgment at issue: that expediency as the pattern of national or international conduct—expediency as an instance of allowing intermediate means to be chosen on the basis of an insufficient range of consequent last means —is a morally bad habit.

Why then is expediency practiced as a national and international mode of behavior? In the last analysis because the support of public opinion or of the ballot box cannot be obtained for any other mode. In the state of mass psychology heretofore it has been impossible, when a particular measure or policy (intermediate means) is under consideration, for the body politic to be influenced by any but near, evident, and practical consequences. Remote consequences, especially those suggested solely by abstract principles, simply do not register in the collective motivational mechanism. There are no lessons that mankind finds it harder to learn than the lessons that history has to teach. So long therefore as so much of democracy obtains in national and international affairs as to render free public opinion the prime factor to be considered and public approval the first condition to be sought for, just so long will expediency be the

rule of national and group behavior and just so long will conduct based on expediency be followed by an indefinite chain of dolorous effects. And this we may expect to be for a very long time indeed. (This is not to say that the force of public opinion is a necessary condition to political expediency; it is to say that it is a sufficient condition. Expediency might well prevail, however, in the complete absence of effective public opinion, as in a perfect autocracy.)

To determine instrumental value by one believed consequence, but that a remote instead of a near one, is almost as bad morally. This habit characterizes the fanatic, the bigoted, the ruthless, the quixotic. The present instrumental value of any object or action is judged principally or solely in terms of its connexion with some last means which "has" for the person judging preeminent indirect terminal value. This type of individual, to be sure, does not always, or even commonly, overlook the nearer or more extensive consequences, but the affectivities with them associated are of feeble effect when they enter into the summation which determines aggregate instrumental value, while on the contrary the affectivity associated with the *idée fixe* is all-compelling.

The method of determining instrumental value opposite to both of these—to consider an indefinite number of consequences and to give, or attempt to give, substantial affective weight to all of them, to be supercircumspect—when constituting a habit is, of course, also a vice of character. It overlooks the fact that, while the number of consequences of any action increases throughout the future in geometric ratio, their present importance decreases on the average in inverse ratio to their temporal distance. It is the vice of indecision, of paralyzing skepticism, of dilatoriness in action, of self-frustrating deliberation. The summation leading to aggregate value is literally never made up, not only because the organism runs through an indefinite number of indirect terminal values associated with believed or even merely supposed consequences, but because during deliberation the contemplated object or action and its relations have themselves changed. Instrumental, like terminal, values must be plucked while they are ripe on the vine.

We arrive, then, with Aristotle, at the conclusion that the mean, and only remaining, course is best. Instrumental values, if the objects to which they appertain are to yield a maximum of satisfaction,

must be determined by more than the merely immediate, and yet something less than all surmisable consequences. The range of relevant consequences in each case and just which are important within that range are things that must be learned by experience of life—for the most part preferably vicarious. The man of moral sense will take into account certain of the remoter consequences of an object, but he will realize that the more remote they are the more uncertain. He will likewise consider the proximate consequences, but he will recognize that the proximate consequences are often the less consequential. From the total of possibilities determining instrumental value, an intelligent selection must be made in each instance. And in so far as instrumental values enter into purposive behavior and in so far as selection is the essence of artistic creation, we are justified in speaking of an art of intelligent living, having as its "end," according to hedonism, the actualization of a maximum of positive value.

These considerations respecting the dependence of instrumental value upon the consequences of an intermediate means now enable us to deal curtly (which is all it deserves) with a traditional issue—the so-called Jesuitical principle that, "The end justifies the means." Translated into the terminology of the present work this becomes, "The last means justifies the intermediate means." Thus phrased, the principle implies that if the last means to which a contemplated action leads is demonstrably probable of producing positive affectivity, the action contemplated is thereby sufficiently endowed with actual instrumental value. Obviously this is just the type of argument which a bigot or fanatic would rely on to furnish some intellectual justification for such odious institutions as, say, the Catholic Inquisition, the late and unlamented Nazi Fascism, or contemporary Soviet despotism. Equally obviously it overlooks two facts: that an action has as consequences not one but several or many last means (objects productive of terminal value) and likewise one or more intermediate means leading to still other last means. To decide a priori as a matter of principle that the indirect affectivities of all these consequences shall not count in the determination of instrumental value, but only the affectivity associated with one particular anticipated last means, is perfectly arbitrary.

In practice, the principle is probably not really held on rational,

but on purely non-rational grounds: the affectivity occasioned by a particular last means is *felt* to be so superlative in degree that no other affectivity or combination of affectivities is acknowledged as comparable or even as worth comparing. To the Catholic Inquisitors that phantasm of their morbid imaginations, the supreme last means of "saving the souls of the Faithful," was endued with such transcendent positive value that any intermediate means which could be thought probable to entail its furtherance was thereby suffused with a positive quality regardless of any other consequences. So likewise with the Soviet oligarchy and its equally phantasmal "dictatorship of the proletariat" and "classless society." As neither in these nor any other instances can felt affectivities be altered by *reason*, the only effective recourse against those who hold to and practice such pernicious principles is to see to it that such individuals shall *feel* other consequences of their activities than the fixed one which determines their choice, which other consequences shall be so designed as to produce a very sensible degree of negative affectivity, that is, unpleasantness.

This analysis has been predicated upon taking the maxim in its usual and historical sense of a particular last means alone providing the justification of one or a number of intermediate means. In hedonism, however, or indeed in any teleological theory of value, the *end* by hypothesis must be the sole justification of the *means*. In hedonism pleasantness is the "end" of all activity and it is the attainment of pleasantness which by definition confers positive value upon an object and this alone. Hence it is vain to seek for any other "justification" of an action (means) than that to which it probably leads. But the great and decisive difference is that this justifying "end," which is terminal value, is an *aggregate* terminal value, being the summation of the terminal values accruing to all the last means—at any rate all the affectively important last means—which follow from the action. In so far as the aggregate direct or indirect terminal value of the consequences of an action is positive, the action is thereby justified *for* the organism which feels the positive terminal value. (The organism may of course be humanity, in which case it is said that the action is justified "in the eyes of" humanity.)

But even in hedonism, or some other teleological value theory—we are here using the word *teleological* not in its classical, metaphys-

ical sense, but in the limited sense suggested in Chapter 1—the end as foreseeable can never completely or finally justify any means, for no foreseeable aggregate terminal value can include all the probable or actual component terminal values which follow from an action, nor can any organism feel even in indirect fashion the affectivities associated with a series of consequences extending into the whole abyss of the future. Therefore, though in hedonism the end (positive affectivity) by hypothesis justifies the means (intermediate or last), yet no means, however complete the foreseen or fore-felt aggregate positive terminal value, is ever justified in other than a relative and temporal sense. (This stands in the sharpest contrast to the absolute and eternal justification of bigots and fanatics.) Even *after* the foreseen pleasurable consequences have occurred, the original means still cannot be regarded as completely justified, since from every means follow consequences extending indefinitely in direction and time. Even at the moment of "justification" it may be that some of the later consequences will subvert the presumed virtue of the means. Only an omniscient being would be endowed with the wisdom to declare incontrovertibly that any particular means is justified for any organism by its complete aggregate of ends.

But still, the relative and temporal justification accessible to man —creature of but a few links in the great chain of being—is sufficient for all the purposes of his rational living. Thus if the observed consequences, past and present, and the probable future consequences of some action—let us say the habit of revering truth—are such that the aggregate terminal value which they occasion is strongly positive (which for the author it is), then for the organism sensing such value the action itself "has" actual and potential, direct and indirect, positive instrumental value, that is, it is "justified" as an intermediate means leading, through certain last means, to the end of positive affectivity. No considerations such as that it *may* have other present consequences of which we are not aware or that there is the open *possibility* that its aeons-remote future consequences may occasion negative affectivity to some other organisms —no wraithly considerations such as these (though they show that the justification *is* of necessity temporal and relative) have any effect in causing us to alter our judgment that, to the best of our

knowledge and *for us*, the object—in this case the habit of loving truth for its own sake—is justified in the fullest sense of which our hypothesis allows. If this is true of such great virtues as loving truth, it is also true of the smaller—such as promptitude, sectional patriotism, sociability, conformance to sexual convention, pious abjection, and finical table manners. And finally, that this kind and degree of "justification" of means is sufficient for the rational conduct of life is attested to by the facts that, despite diligent search elsewhere, it is the only justification mankind has ever found and, what is more (and unbeknownst to the majority), is the only one upon the principle of which mankind has in the final analysis ever conducted its significant practical affairs.

By way of emphasis, attention may be called to the fact that one important deposit left by the miscellaneous material which we have sifted through the sieve of our analysis is the general proposition that no proposition asserting value is more than probable. This may be said to have been built up gradually in the course of our demonstration that every assertion of the existence of a value relation is by nature an assertion concerning a matter of fact, and, accepting the Humian analysis, assertions concerning matters of fact can never be more than probable.

One far-reaching practical implication of this is that no moral rules, no ethical norms, no aesthetic standards, no "sacred" commandments, no maxims of jurisprudence, no legal statutes, in so far as they are propositions assertive of value—value appearing in such forms as right, goodness, beauty, sin, probity, crime, and so on—can be more than propositions whose truth is probable in greater or lesser degree. As such they are on precisely the same footing as the propositions of science—even those considered most "certain"—and are ultimately to be accepted or rejected, supported or attacked, justified or doubted on precisely the same logical and epistemological grounds.

In the large majority of the practical situations of human living, value propositions must be received and acted upon as if they were absolute, if civilization is to be possible; this is one of its useful fictions. It is only for the philosopher (using the term in a wide sense) to recognize the contingent character of value propositions

and to investigate the grounds of their truth and validity. Learning in the field of axiology—as indeed in most of its fields—must, because of the preemptory exigencies of mankind's daily concerns, remain aristocratic; it is here above all that a little learning is a dangerous thing. But on the philosophical level it is as true as for the field of scientific endeavor that the search for more adequate knowledge in the realms of value must be allowed complete freedom if man's understanding is to be advanced.

But of these matters we shall take further thought. Now, with the foundation provided by the predominantly abstract analysis of this chapter to build on, let us in the next investigate in somewhat more concrete fashion the form or forms of value which are implied in any proposition or judgment containing the term *ought* or its equivalent—that is to say, in ethical propositions or judgments in their broader aspect.

Chapter 3

THE MEANING OF *OUGHT*

IN A GENERIC SENSE any *ought* proposition is an affirmation of potential value, and as such, therefore, it is, as we have seen, a conjunctive categoric-hypothetical proposition asserting the compound probability of two or three future facts and one necessary, sufficient, or both sufficient and necessary condition to positive, indifference, or negative affectivity. (The reader should be advised at once that the proposition expressed in the foregoing sentence is momentous in its axiological implications and that its importance for the establishment of the foundations of ethics can hardly be overestimated. It will be the purpose of the remainder of this chapter to develop some of its implications and exhibit their clarifying influence. The fundamental implication is that, if true, all propositions asserting an *ought* are but a species of propositions asserting *matters of fact. Ought* becomes a form of *is*. There will not be found in ethics a principle more crucial than this.)

As a potential value proposition may be conjugated in all the tenses, so an *ought* proposition may have reference to past, present, or future. The values which are asserted in *ought* propositions are usually, though not necessarily, aggregates; they are summations of the particular terminal and instrumental values predicted as attaching to component aspects of the object in question. "You ought not to do this," in the absence of special limitation, implies, ". . . in view of the consequences to you as far as can be foreseen into the future."

The potential value which basically an *ought* proposition asserts may be terminal or instrumental, depending on whether the object referred to is a last or an intermediate means. But since, as has been demonstrated, every instrumental value depends on the prior existence of a terminal value "in" a consequent object, we may exhibit all the necessary theoretic considerations in connexion with *ought*

propositions by confining our attention to those that refer to terminal value. No *ought* involving instrumental values could validly be asserted were not a logically prior assertion made or implied of an *ought* based on related terminal values. There would, for example, be no grounds for asserting that x ought to choose ticket m instead of ticket n unless it is also implied that x ought to listen to symphony M instead of symphony N.

Ought propositions are of two main forms, which may be called the predictive and the admonitory respectively. They are quite different in meaning and usage, having almost nothing in common but the being based on potential value propositions.

The *predictive* form asserts the probability of the occurrence of value in a specified situation, the situation being assumed. For example, "I think you ought to like this symphony"; "When he said that, you ought to have seen her face!"; "Judging by the level of public taste, this novel is so fustian that it ought to become a best-seller"; "He is an excellent speaker; the meeting ought to be unusually interesting"; "Three young men as promising as Rupert Brooke, Franz Marc, and Henry Moseley ought not to have died so young." In each, alternative values are implied as possible and the word *ought* means, It is asserted that one of the alternatives, usually the positive value, is or was the more likely to occur in the assumed situation. As the examples show, predictive *ought* propositions may have a past reference: "Assuming that Brooke had not died at Skyros and Moseley at Gallipoli in 1915 and Marc at Verdun in 1916, it is probable that they would have endowed us with more of their charming poetry, brilliant physical papers, and pregnant paintings, respectively."

This use of the word *ought* is colloquial and inexact, and is sometimes hardly to be distinguished from the implied wish or hope which often accompanies it. For example, depending on the tone of voice, facial expression, or gestures with which it is associated, the proposition concerning Brooke, Marc, and Moseley may imply, "I *wish* they had been spared," meaning "The unpleasantness which I now feel would not have occurred had these young men not become victims of the First World War." Or, "You ought to enjoy this symphony, and I *hope* you do," meaning "Your enjoying it

will afford me a higher degree of pleasantness than your not enjoying it."

The *admonitory* ought—the one of the two forms with which ethics is concerned—asserts the probability of the occurrence of greater value in one specified situation than in another, the mutually exclusive situations being regarded as feasible alternatives and no assumption being made as to the probable actualization of either. "Feasible" may be taken to mean within the limits, not of bare logical possibility, but of consistency with the laws of nature and the organism's repertory of behavior. Thus it would be senseless to say, "Instead of waiting for the funicular railway, you ought to jump up to the summit of Mt. Vesuvius." This may be contrasted with, "The building is on fire; you ought at once to jump out of the window." (Compare the predictive ought, of an athlete, "Before the season is over you ought to be throwing the javelin over two hundred and twenty feet.") Of course the term "feasible" in this connexion is and must remain to a considerable degree vague. This is not the place, in view of the limitations of the present work, to attempt an exhaustive prescription. Perhaps such a study pertains to psychology, physiology, and sociology. Suffice it for the present to note and acknowledge the looseness of reference in the admonitory ought. For example, in "The lion ought to lie down with the lamb," is that, or is it not, considering leonine nature, a "feasible" alternative? And what of, "All nations ought to abjure war as an instrument of national policy"?

If neither of the two alternatives is attended by a probability of greater value than the other, then of course as between the two there is no *ought*. They are, relatively to one another, indifferent, though, in comparison to some other alternative, we might properly say, "You ought to do one *or* the other of these things—it doesn't matter which."

It will be noted that an admonitory *ought* includes as component factors two predictive *oughts;* in order to assert the probable occurrence of greater value in one situation than in another, it necessarily asserts some sort of potential value in each situation. Unless otherwise stated, the alternative situations are implied as being the occurrence and non-occurrence of the same stimulus-response contexture. (Of course, there may also be three, or more, alternative

situations, one being recommended as preeminent.) For example, "You ought to go to the symphony" means "I think it probable that you would derive greater value from going to the symphony than from not going," unless some other alternative is explicitly indicated, as "You ought to go to the symphony rather than to the circus." The asserted values are generally aggregates: "Considering everything, I think it probable. . . ." As in all propositions asserting potential value, there is a more or less definite time reference—in this instance implicit.

To take another example—"You ought not to indulge in slander" might ordinarily be taken to mean, "I think it probable you would be happier in the long run if you did not make unfounded derogatory remarks about others than if you did." Obviously the values implied are aggregates. Also, as in the case of the predictive ought, there may be implied a desire or wish: "You ought not to . . . and I personally *desire* that you do not. . . ." Furthermore, in this, as in many or most instances of admonitory oughts, there is probably the additional implication, conveyed by facial expression, tone of voice, or perhaps gestures, that one of the ways in which unpleasantness would come upon the one being advised, if the advised alternative is not adopted, would be via the expressed or effectuated displeasure of the speaker and other persons. "You ought not to . . . , for if you do, we (some implied group) are not going to like it and you will feel the ensuing effects." Or facetiously but expressively, "You'd better not—or else!" In so far as the reaction of the speaker and others is implied as a probability bearing on the asserted aggregate potential value, it is included by implication in the data supporting the hypothetical condition which is part of every potential value proposition. That is, the implication, "we would show our displeasure," is partial supporting evidence for the hypothetical component, "*If* you do this, *then* you will be happier."

This emotive aura which surrounds many admonitory oughts—"Would that you had done this . . ." or ". . . and you'd just better do this"—has been taken by one prominent contemporary philosophical school to be the essential and not further analyzable meaning of ought expressions. This is one aspect of what has been jocosely but accurately referred to as the "Boo-Hurrah theory" of value judgments. It is believed that the above analysis suggests that

such is *not* the essential meaning of ought expressions and that on the contrary they *are* analyzable into components which are identical in function with those of the type potential value proposition. Therefore we shall regard the theory that expressions involving *ought* are in some such manner *sui generis* as mistaken—as well as useless—and hence inadmissible.

From the foregoing analysis it may be surmised that ought propositions accompanied by this emotive aura shade over into propositions assertive of *duty*. This subject will be taken up in some detail in the next chapter.

To continue our investigation of the essential meaning of the admonitory *ought*—since one of the alternative aggregate values may be declared either greater or less than the other (leading to the expressions "ought" or "ought not,") and since the implied conditions of realization (in the hypothetical components of the respective potential value propositions) may be sufficient, necessary, or both, there result six more or less distinct subclasses of the admonitory ought proposition, which may be thus illustrated:

1. *Positive—sufficient.* "You ought to choose m instead of n, for if you do, you will achieve the greater satisfaction."

2. *Positive—necessary.* "You ought to choose m rather than n, for if you don't you cannot achieve the greater satisfaction." We may exemplify this type of ought proposition by two, more concrete, applications—one ethical, one aesthetic. "If you are not honest, throughout your life you are not likely to be respected in the community; if you are not dishonest, throughout your life you are equally not likely to be despised in the community; but for you, being respected would probably occasion greater aggregate actual positive value than being despised; and thus for you, being honest probably 'has' greater aggregate potential positive instrumental value than being dishonest; therefore you ought to be honest rather than dishonest, for if you are not honest you will probably not achieve the greater value." "If you fail to go to the symphony, you will probably not experience rich terminal value of two hours duration in hearing the music; if you fail to not go to the symphony, you will equally probably not experience the moderate instrumental value of two days duration of saving the price of a ticket; but for you I judge that the positive terminal value of hearing the music would

be greater than the positive instrumental value of saving this amount of money (all modes of value being commensurable); therefore you ought to go rather than not go, for if you do not go, as between these two alternatives you will probably not achieve the greater value." (Obviously this type of proposition—resting on merely necessary conditions—embodies a weak form of *ought.*)

3. *Positive—necessary and sufficient.* "You ought to choose m rather than n, for if you don't, you will miss the greater satisfaction which would otherwise almost certainly be yours." In more expanded form: "If you choose m, you will experience a high value, and if you don't choose m, you will not experience a high value; on the other hand if you choose n, you will experience a low value, and if you don't choose n, you will not experience a low value; in other words, for you in this situation m almost certainly entails high value and n low value; therefore you ought to choose m."

The reader may wish to ask, "Under this interpretation of *ought,* what about the value which m entails *for other people?* Supposing it negative, is that to have no effect on the individual being advised? Is he to choose m just because it has high value *for him?*" The reply to the last question is, yes, for according to the postulate of hedonism each individual will choose that which appears pleasantest *to himself;* no organic mechanism can be otherwise actuated. But this by no means implies an egotistic answer to the other questions. For, living in society as we do, the effect of an action on other people will almost inescapably reflect upon the doer, immediately (as in the rapport of sympathy) or remotely (as in the social, moral, or judicial reactions of the doer's fellow men). Therefore, when the individual is advised that he *ought* to choose m because of its higher value, if the statement is true it must include as a condition to that higher value the favorable reaction, if any, of society. If the action or object, m, "has" a decidedly low potential value *for society,* it will sooner or later by the intimately interconnected conditions of social living "have" an aggregate low value *for the advisee* also. Granted, this value reflexion does not occur in *every* case—it is conceivable that some hardened and supremely independent individual should experience high aggregate value throughout his lifetime from an action, or pattern of action, which is the occasion of negative value to his fellow men. But this value reflexion occurs in the very great

majority of cases and it is overwhelmingly probable in any one case, even that of the hardened tyrant. If this were not so, human society would be impossible; indeed, it long since would have withered utterly and the human race, if not destroyed, would not have continued to exist above the predatory animal level. But that it has *not* vanished and *does* exist on a level that can without covin be described as "human," proves that by and large positive private value cannot be negative public value. Therefore in this example, if m entails high aggregate value for the advisee, it is implied as a necessary condition thereto that it cannot entail noticeably low aggregate value for society. The supposed objection is accordingly answered by showing that it involves unwarranted assumptions. But to pursue this subject further would lead far into the fields of ethics and sociology, and if the reader is not satisfied by these hints, he will have to be requested to defer his complete rejection of the argument pending a more extensive and adequate defense of it upon some future occasion. (The subject will, however, be touched upon again when we come to discuss the meaning of *right*.)

4. *Negative-sufficient.* "You ought not to choose n instead of m, for if you do, you will suffer the more unpleasant consequences." This is the form of ought proposition in which by tradition tabus, moral commandments, and laws are most often couched. "Thou shalt not . . . for if you do . . . (dire consequences)." May it not be considered a weakness on the part of historical law and morality that it has almost exclusively chosen the purely negative enunciation? Are not human beings at least equally in need of *positive* guidance in their aspirations to realize the values of life?

5. *Negative-necessary.* "You ought not to choose n instead of m, for if you don't (choose n), you cannot suffer the more unpleasant consequences." That is, both m and n create the possibility of unpleasant consequences, but those of n are more unpleasant than those of m; therefore, if a choice must be made, the advisee ought not to choose n (if, as hedonism maintains, pleasantness is his sole "end" of action). For example, "If you don't try to swim the Charles River this midwinter afternoon, you probably won't be drowned; if you don't attend that chattery faculty tea in Cambridge, you probably won't be bored; but drowning would probably 'have' for you the greater negative terminal value; therefore (as far as these

considerations affect the issue) you ought not to choose to swim the river rather than attend the tea, for if you don't (choose the swim), you probably will not suffer the more unpleasant consequences."

The limited implications of this form of ought proposition embodying as it does *necessary* conditions, should be noted; it does not assert that if the one being advised does swim the river he *will* be drowned, nor that if he attends the tea he *will* be bored. As was said above, such propositions express a much weaker *ought* than those embodying sufficient or sufficient and necessary conditions.

6. *Negative—necessary and sufficient.* "You ought not to choose n instead of m, for if you do, you will suffer the more unpleasant consequences and if you don't, you won't." That is, if m is chosen certain unpleasant consequences will result and if it is not chosen they will not result; if n is chosen certain more unpleasant consequences will result and if it is not chosen they will not result; therefore, as n entails the more unpleasant consequences, n should not be chosen in preference to m. For example, "My king is in a perilous situation. I must either move it or sacrifice my queen. If I move my king I will (if my opponent is astute) be checkmated in one move and if I don't move it I cannot be checkmated in one move; if I sacrifice my queen I shall be left with forces inferior to my opponent's and if I don't sacrifice it I shall not be left with inferior forces. My opponent is a good player and there is no reasonable probability that he would overlook either opportunity to do me harm. Therefore, though tempted, I ought not to move my king, since it entails the more unpleasant consequences."

In the foregoing example the respective potential values are engendered by the rules of chess and the acceptance of these by the players. If I am anxious to have done with the game, then the indicated values will be exactly reversed. Nothing proves more conclusively the "non-objectivity" of values than does the game of chess, for obviously the men, the board, and the rules are matters of pure convention, and yet every mode of value occurrence can be exhibited "in" its various stimulus structures: every move is preceded by an estimation of potential value; the estimation behavior involves the experiencing of indirect values; each move made "has" instrumental value; some moves "have" positive terminal value in such

degree that they may as justly be called *beautiful* as any work of art (if anyone doubts this, let him play over Paul Morphy vs. Count Isouard and the Duke of Brunswick, Paris, 1858); and so on. The whole game, as played, forms one of the richest, purest, and most intricate value contextures known to man; it is an axiological microcosm. But if values are "objective," by what possible means did they happen to embody themselves in just this curious collection of thirty-two wooden objects and a geometrically divided plane surface? The very notion is incredible.

Besides these six general varieties of ought propositions it is obvious that there are a number of mixed varieties: propositions in which one alternative is expressed as a necessary condition, the other as a sufficient; propositions which assert the superiority of one alternative to two or more others; and so on. But as it is not clear that anything would be gained by an attempt at exhaustive enumeration, this phase of the analysis may be allowed to terminate with the preceding account.

By way of recapitulation and restatement in new terms, the *predictive* ought asserts potential value in a situation or object; the *admonitory* ought asserts more potential value in one situation or object than in another or others.

If now, in spite of all the foregoing discussion, the reader should still not feel assured of understanding how any such concept as *ought* can find a place in a deterministic system such as hedonism and be inclined to interpose with something like, "But if, as hedonism asserts, an organism's every act *is* determined by the relative pleasantness associated with some alternative in a problematic situation, what sense can it make to say to him that he *ought* to choose any particular one? If he finds that one pleasantest he *will* choose it and that is the end of the matter . . ."—if the reader still has not rid himself of doubts of this sort, a recapitulation of the answer implied by our hedonistic postulates may here be stated in just two propositions:

(1) The very meaning of *ought* is a matter of fact prediction that *if* a certain alternative *should be* chosen, greater value would probably result. An ought proposition, thus conceived, makes just

as much "sense" whether it is conveyed to the person in the problematic situation or not, but in particular—

(2) The "sense" in telling the individual that he *ought* to choose a certain alternative consists in the facts (a) that a connexion is formed in his neural mechanism between that alternative and the greater potential value, (b) that this connexion influences him to *feel* greater actual value *now* in the thought of that alternative, and (c) that thus the affective stimuli which determine his choice are to some extent modified toward what is believed to be the more desirable (valuable) direction.

To tell a person he *ought* to do something is, in short, to provide an additional stimulus—which would not otherwise have been present—impelling him to just that particular response. To doubt what "sense" this sort of behavior makes is precisely equivalent to doubting the "sense" in predicting the weather, inflicting punishment, striking a billiard ball, turning the steering wheel of a car, or in the application of any stimulus designed to affect the future course of events.

In either the predictive or the admonitory form, as the reader will have noted, the conception of *ought* applies only to means, last or intermediate, never to "ends." Under the hedonistic hypothesis pleasantness is the sole "end," towards which all behavior is directed. Therefore there can be no meaning in telling a man he *ought* or *ought not* to seek pleasantness. He *does* in all his acts. It is from this prior fact that *ought* acquires its meaning. For the implicit universal premise in all forms of the ought proposition is, "Assuming that you prefer the greater to the lesser degree of pleasantness, you ought . . ." An ought proposition points out *how* to achieve that which is desired and sought. It is good or bad advice in so far as the means advised does or does not in fact conduce to the end of the advisee's happiness.

As between intermediate and last means in any *ought* situation—which is to say in any ethical situation generally—the last means, even if involved only by implication or assumption, are much the more important for, as we have seen, intermediate means are derivative from and dependent upon last means. Thus it is that the fundamental defect and danger in contemporary education is its

excessive concern with the techniques of intermediate means and its failure to inculcate a critical understanding of last means. Education—often rather to be called vocational training—is engrossed with *how* to build bridges and atomic bombs, *how* to win a case at law, good or bad, *how* to keep the chronically ill alive long enough for them to reproduce their kind, and too little concerned with *why* ultimately these things should be done at all.

As we have had occasion to remark, the confusion of last means with ends is one of the chief sources of error in theory of value. In connexion with the present topic, to suppose that *oughtness* applies to ends rather than or as well as means is at once to throw the subject into total and hopeless confusion. An end as such is "beyond good and evil"; it is itself the standard of good and evil. On no single point is it more essential to be clear. And once clear on this point, a large number of the traditional objections to hedonism are seen to gain their only plausibility from this misconception. One example may be allowed to serve for all. For over two thousand years the Platonic objection (*Protagoras, Republic, Gorgias, Philebus, passim*) has reappeared in endless forms (even though its refutation was suggested by Aristotle and explicitly stated by Epicurus): even supposing pleasure to be the end of conduct, still the conception of *ought* must be applicable, for it is obvious that there are good pleasures and bad pleasures, and no theory, not even hedonism, would maintain that anyone ought to pursue the bad pleasures; therefore pleasure is not the sole end of conduct and therefore hedonism is shown to be mistaken.

It does not require any exceptional degree of acuity to see that the word "pleasure" here is ambiguous. In one sense it is the *feeling* (what we denote by P); in another sense it is the *object* or *action* which occasions the feeling. (The same perilous ambiguity we have seen to lurk in the term *value*. For example, in "One ought to seek only life's higher values," what is meant?—affectivities, actions, objects, qualities of objects or actions, or what?) Now there is nothing bad about pleasantness—the simple affectivity—as such; it has no consequences; it leads to no results; it is simply a recurrent datum of our life experience. In itself no affectivity is any worse than another of equal degree, though admittedly its surrounding circumstances may be worse than other circumstances. So if there are bad

"pleasures," the latter word must be taken in the sense of objects or actions which lead to the affectivity of pleasantness. In this sense the hedonist will agree with Plato's stricture. But—objects or actions which lead to something else are means, not ends. Therefore in saying that a man ought not to choose bad "pleasures," we are saying no more than that he ought not to choose bad means, that is, for the hedonist, means which lead to immediate pleasantness perhaps but in the balance produce a preponderance of unpleasantness. With this, however, the Platonic objection loses its point.

Now, the *admonitory ought* compares two or more potential values with respect to which is greatest or least, highest or lowest. We have seen that potential values are to be rated in some approximate but serviceable way according to the compound probabilities of their components and the degrees of affectivity. They are not rated according to their time references. This implies that a man *ought* to choose the object "having" greater potential value even though it be much the more remote, since the time references do not change the respective value standings. But this has the air of a paradox. Surely few of us are more than mildly interested in very distant objects, however great their potential value. We must deal with life as it confronts us. Why *ought* we to sacrifice a moderate present enjoyment for a greater one a year hence, which may or may not ever materialize?

The paradoxical atmosphere of the situation arises mainly because we overlook certain factors. First, potential values are *not* equal unless the compound probabilities and degrees of affectivity are equal; nor is one distant potential value greater than a near one unless the compound probabilities and degree of affectivity which determine it are in product greater than those of the other. Thus probability of materialization is already included. A man aged twenty, in good health, would be a fool to choose one dollar now rather than a positively assured one thousand dollars a year hence. He *ought* to choose the remoter alternative, because, all factors considered, it "has" for him the higher aggregate potential value.

Secondly, the apparent paradox is weakened because in life as ordinarily lived most of the "ought situations" which confront us involve a weighing of potential values having the same, or nearly

the same, time reference. We do not usually have to choose between this now and that a year hence; we may often seek and expect both. Our choices are usually between this now or that now, this alternative tomorrow or that alternative tomorrow. In these usual cases, the time reference being the same, it obviously cannot be a factor affecting the issue. In these instances there is no apparent reason why we ought *not* to choose the object promising the greater value.

The paradox, if there is one, arises only in those cases where there is a difference of time reference and where the remoter value is the greater. (The one and one thousand dollars example is a case in point.) As we have before seen, unless the remoter value is much and obviously the greater, men are prone to give preference to the nearer. We suggested that the principal reason for this is the uncertainty which usually attends probabilities extending any distance into the future. When a man shows a preference for the nearer and lesser value on this ground, by saying that he *ought* to choose the remoter and greater we are in effect endeavoring to reinforce in his estimation the probabilities involved in it, since by greater potential value is meant (in part) that its realization *is* of such probability that, in combination with its degree of affectivity, it outweighs the nearer alternative. We are endeavoring to make the individual *feel* a greater actual indirect value in contemplating a symbol of the future object. Once this is accomplished, he will choose it and act accordingly.

Thus the air of paradox appears to be dissipated. If a remote object truly "has" greater aggregate potential value than a nearer one, then truly we *ought* to prefer it. If we do not, but instead choose the nearer, we are acting in a manner which will probably procure for us the less pleasantness. That is to say, we are acting inadvisably (where others' happiness is but remotely involved) or wrongly (where our acts importantly affect the happiness of others). That we do so act is but too frequently evident. Probably no human trait is a more fruitful source of pain, disappointment, and evil. It is the more insidious and pervasive in that it is quite consonant with the "best of intentions." To feel greater actual indirect value in the nearer object, and so to choose it in preference to the more remote, which in the cold light of reason "has" the greater potential

direct value, is the root cause of that morass of folly, selfishness, shortsightedness, apathy, fickleness, and mutual, uncomprehending hurt in which consists the tragic side of social and political living. Conversely, it is one of the highest aims of education as training of character to foster the habits of foresight and circumspection and the ability to estimate and feel the probable values of future acts and objects. I say both *estimate* and *feel,* for these represent the intellectual and sensible components respectively of moral virtue. A man cannot choose that which he does not know; and he cannot choose it even if he does know it unless he *feels* it to be superior in value to a known lesser alternative. Intellect and affection are the twin components of the moral character: each is a necessary condition; neither alone is, but both together are, a sufficient condition. And both are the proper objects of the education of the moral disposition.

At this point in the discussion of the meaning of *ought* we may conveniently pause to consider in a new light what perhaps to the reader may seem the chief objection to the hedonistic account of the matter: namely, that in this account it is assumed that when two alternatives are present to a man, he ought to choose the one which promises the greater value *for him,* when as a matter of fact it is universally acknowledged that there are many occasions in every life when a man ought to choose that alternative which promises the lesser value *for him* but the greater value for others. Examples are legion: two typical instances are, that at the sinking of a ship, say, a man ought to sacrifice his life for the sake of others, and that every man who has assumed the responsibilities of a family ought, at the cost of his own enjoyment, to provide for the welfare of his dependents after his decease. Each of these examples shows, it is pretended, that an individual is often under an acknowledged obligation to do that which can cause him no, or at most brief, pleasure. What personal enjoyment does a man gain by going down with a sinking ship and what pleasurable motive could determine him freely to choose that alternative? Yet, in certain circumstances, he *ought* to do it. What value can accrue to a man after his death by reason of the security of certain other persons who were his de-

pendents, compared to the values he would have secured by employing all his substance in the indulgence of himself during his lifetime?

Plausible as this objection has seemed in some one of its many forms to certain thinkers heretofore, actually it fails by reason of insufficient analysis. If examined far enough it will be found, as the present discussion concerning the meaning of *ought* maintains, that any case of obligation is based on an existent probability of greater positive or lesser negative affectivity in one alternative than in another for the individual said to be under obligation. The value or positive affectivity which a man gains by sacrificing himself at the foundering of a ship is the accompaniment of his thereby extraordinarily sharpened feeling of sympathy with those whose lives he is helping to save and of pride in his own decorum. The pleasantness associated with self-sacrifice is, under appropriate conditions, one of the strongest affectivities which human beings may know. On the other hand, the alternative course of conduct—to rush in and deprive some weaker individual of a place in the lifeboat—is in prevision powerfully evocative of indirect negative value; the foresight of the despair of the weaker party, the contempt or worse of his fellow survivors, and a lifetime of regret and remorse is so strongly associated with negative affectivity that the man who is at all sensitive to such influences cannot choose that alternative. He recognizes that he *ought* to sacrifice himself, that is, that the probability of the occurrence of greater value for himself lies on the side of renunciation. As for the crass individual who does not recognize the *ought* in the situation, he will either choose the wrong alternative, to his probable axiological cost—even if he is so crass as to be immune to sympathy, insensitive to contempt, and inured to remorse, he still cannot escape his karma, for this action will contribute to the stamping of his character indelibly in such a manner that the finest values of life will forever remain beyond his reach—or else he will be led to recognize his obligation by the intrusion into the situation of more forcible stimuli—one of the ship's officers will invite his attention to the view down a pistol barrel, whereupon he will be led to agree with the sensitive man that the alternative of self-sacrifice does hold out the likelihood of greater potential value.

The reader will surmise that the case of the *pater familias* is quite

similar. To be sure, no value will accrue to him after his decease—the phrase is meaningless because after the event called death the pronoun *him* has no denotatum—but he *ought* to provide for his dependents none the less, because that alternative offers the greater value during his lifetime; on the one hand, sympathy, gratitude, the joys of anticipated security, the approbation of society; on the other hand, society's disapprobation and perhaps resort to legal force, an unhappy family life, foreboding, the pains of conscience. The balance of pleasantness is so decidedly on the one side that a man must be something of a dolt not to recognize it—hence his *ought.*

Thus these examples, extreme though they be, fail to sustain the objection. It is the contention of hedonism, as here interpreted, that any other case of *ought,* moral *obligation,* or *responsibility* may similarly be shown to be an instance of the probability of the occurrence of greater value in one alternative object or action than in another (or others). This can, of course, hardly be proven, since we can never run through an indefinite class; but it gains a high degree of plausibility by the absence thus far of any historical, or even theoretical, instance to the contrary.

The particular examples we have dealt with *appear* to controvert the hedonistic thesis because they are instances in which the usual occasions for value are transformed. Value usually occurs in some sort of participation or indulgence, not in immolation. Here, however, the concatenations of circumstance are such that positive value is rendered probable by the very things—abstinence from normal enjoyments and the incurrence of mortal danger—which ordinarily would render probable negative value. That such concatenations do occur is not a disproof of the hedonistic thesis; it shows merely that our definitory analysis of *ought* must be sufficiently flexible to account under one formula for all occasions on which a moral obligation is observed to exist in fact. (It may be remarked parenthetically that the circumstances of life as a whole are, as Buddhism alone among religions has fully recognized, such that unrepining renunciation of even its dearest gifts and purest aspirations is the sole means to that serene imperturbability which is the foundation of man's deepest, broadest, and most enduring value. In those rare moments when he is privileged to look upon the universe in the stellar perspective, the man who is capable of supreme

felicity will recognize the essential obligation of giving over all concern or desire and observing the unselected flow of events as impersonally as does a nocturnal pool the succession of the constellations. Still, this ataraxia in the face of the macrocosm is not inconsistent with a responsive sympathy in the joys, the sorrows, and the aspirations of fellow creatures in the microcosm. Of this we shall have more to say later.)

It is a matter of common observation that *oughts* may conflict as well as goods or values. In certain circumstances Ax ought to actualize a certain object-situation, z, because it "has" greater potential value for him than any other. But at the same time Bx ought to actualize non-z for the corresponding reason. Furthermore, to sharpen the antithesis, let us suppose that in each case the potential values are greater *even including the negative potential value of causing unpleasantness to the other organism;* that is, Ax foresees Bx's disvalue but nevertheless, in spite of all his sympathy or apprehension of retaliation, he is still assured that the actualization of z will occasion for him greater actual value than non-z; similarly, but exactly the opposite, for Bx. What determines the outcome? Certainly nothing within the moral sphere. For if a correct judgment of potential value has been made in each case, moral considerations are exhausted in the respective *oughts* relative to each organism's point of view. The situation, as between Ax and Bx, could only be resolved on moral grounds if a third *ought* is postulated which would render a decision between the primary *oughts*. But this would only push the antithesis on to a more abstract level. Let us suppose that for Cx (humanity considered as an organism, perhaps) the *ought* of Ax ought to prevail, that the actualization of Ax's potential value "in" z would result in greater actual value for Cx than the actualization of Bx's potential value "in" non-z. This is no solution, however, to the difficulty under consideration, for now we have a similar conflict between the *oughts* of Bx and Cx. Obviously it will serve us not at all to summon to our aid a fourth *ought,* say that of a postulated deity, Dx; if the potential value for Bx of non-z, even considering the displeasure of Ax, Cx, and Dx is still greater (for himself) than that of z, then Bx *ought* to choose and seek non-z.

In short, if value is relative, as it is for hedonism, it is vain to look

for resolutions of value conflicts on moral, aesthetic, or (inclusively) on axiological grounds. When a value conflict exists in fact, each value is absolute within a particular frame of reference. The conflict will be determined by factors which from a mutually inclusive point of view are axiologically neutral, in the sense that physical events are so. The category of *value* ceases to apply. There is no sense to such a question as, "From the universal standpoint, *ought* it to rain today?" It either *will* rain or it will *not,* depending on the preceding total event pattern. Similarly in the supposed situation—from the universal standpoint *ought* z to occur or non-z? There is no *ought* about it; depending on the total concatenation of the universe, either z *will* occur or non-z *will* occur. (Such a total concatenation includes, of course, all the stimuli operating on the organisms Ax and Bx—and perhaps Cx and Dx.)

The conception under discussion, *ought,* could only be introduced to resolve axiological conflicts in some ultimate sense if it were to be held that the universe is capable of positive and negative affectivity in the contexture determined by its reaction to a part of itself. Aside from the ludicrous logical difficulties of such an assertion, there is not the slightest evidence that the universe, or the largest observable portions of the universe, are "affected" in any manner by axiological conflicts. Except through some anthropomorphic in-reading, the heavens neither laugh nor weep at the occurrence or non-occurrence of any value-bearing event—though the event itself is determined by all the past history of the universe and determines all its future history. *Ought,* then, is a conception which is significant only when a partial viewpoint is adopted. (Which leads once again to the recognition that renunciation of the partial human viewpoint and imaginative identification with the universal is the key to the serene indifference which lies beyond good and evil, beauty and ugliness, hope and fear.) *Ought,* like value in general, is significant only in the coordinate system defined by taking an affective organism as a focus. (The implied analogy with the relativity of analytic geometry, physics, and astronomy is an exact one.) It follows that axiological conflicts are not resolvable ultimately in axiological terms; they are resolved within the universal, non-axiological framework of the total flow of events, within the indifferent structure of Being and Becoming.

To admit any sort of relativity has often been held to be the destruction of any valid, or even usable, theory of value. In such case, it is contended, there is no fixed reference, all value manifestations reduce to a matter of every man to his taste, every value judgment rests on mere whim, and so on. Not at all. Relativity in value theory is no more destructive than relativity has proven to be in astronomy or physics—though its introduction into those fields, only accomplished within this century, was as darkly foreboded by the conservative and conventional minded as is its parallel introduction into the axiological fields at the present time. True, relativity forbids us to expect, or even ask for, an *absolute* answer. In fact the notion of an *absolute* answer has become, operationally at least, meaningless. But what of that? Is relativistic physics or astronomy any the less exact and fruitful than the classical? Does it make any theoretical or practical difference whether the earth *is* moving toward Hercules or whether Hercules *is* moving toward the earth? No; we take for our "fixed" reference point (as was said above, in a manner analogous to the coordinates in Cartesian geometry) whatever standard is most convenient. How close are the parallels between physical, mathematical, and axiological relativism will appear in the sequel. It will also, I trust, be made evident (to all but the most tender-minded) that relativity in theory of value by no means entails the subversion of morality.

To return, however, to the matter of conflict of *oughts,* let us consider a simple but inclusive concrete imaginary example. A shipwrecked sailor is cast up on a tiny island. It contains nothing to assuage his thirst but one spring of fresh water and nothing but one edible animal—a rabbit let us say—which would serve to ward off his starvation before rescuers can arrive. The rabbit lives on grass watered by the spring. The sailor *ought* to drink of the spring-water; if he does not he will suffer prolonged thirst, resulting finally in madness and a painful death. There is involved in this no conflict of values; presumably, based on lack of observational evidence to the contrary, the water does not care whether it is drunken of or not; neither its behavior nor its molecular structure is such that we can rationally infer the occurrence of affectivity in any relational contexture in which the water is conceived as focal. (This statement, however, does not rule out the *possibility* that water may be affected

by the stimuli which form contextures with it. It is in nowise impossible or inconsistent to hold that water, or bodies of water, are organisms of low complexity and flexible individuality and that in some obscure degree they react affectively, thus actualizing faint values. If this hylozoistic postulate be adopted—for the convenience of monistic simplicity, let us say, or perhaps merely as an exploratory hypothesis—then, of course, there may well be a conflict of values in the drinking of the water. We recur to this matter of hylozoism because the possibility of its advisable adoption must, in the present stage of knowledge, be kept open.)

But now the castaway *ought* also to catch, kill, and eat the rabbit; for if he does not, he will by hypothesis die an almost equally unpleasant and a more lingering death. The potential value *for him* of eating the rabbit is much greater than of not eating it, even including all his possible remorse at having to cause mortal pain to the engaging creature. (The case of a man of extraordinary sympathy, for whom the remorse would outweigh the unpleasantness of his own starvation, will be considered in the sequel.) Now almost certainly here is a conflict of values. From the rabbit's fright, from its flight, from its struggles to escape, the violent beating of its heart, its spasmodic movements under crippling blows, its last sounds, together with a general knowledge of its physiological structure, we must by empathic analogy infer the occurrence of negative affectivity—indeed, to use more expressive terms, we must infer that the rabbit is experiencing all the terror and pain of which, from its standing in the evolutionary scale, it is capable. Thus, before the event, the rabbit *ought not* to be caught, killed, and eaten (or at any rate the first two, for to be eaten will be nothing to the rabbit after it is no longer in existence). The potential value *for the rabbit* of being caught and killed is much less than of staying alive and munching the sweet grass, even including any possible remorse we may suppose that the rabbit may feel at causing pain to the man by not allowing itself to be eaten.

Even this simple situation is further complicated since the grass is composed of organisms and we may very properly infer in them some rudimentary degree of affectivity. In so far as such affectivity occurs, from the point of view of the grass it *ought not* to be torn up and destroyed by the rabbit; being left to grow under the light of

the sun "has" greater potential value. But from the rabbit's viewpoint it obviously *ought* to tear up and destroy the grass; if it does so, the pleasantness of a full belly; if it does not, the unpleasantness of starvation. Further, from the point of view of the grass, the sailor *ought* to kill the rabbit; that alternative, even considering the subsequent unpleasantness of being trampled upon, promises less of negative value than the rabbit's survival.

Now in view of these conflicting values in this little world, the question naturally arises, Which *ought* ought to prevail? What *really* ought to happen? Ought the rabbit to be killed or ought it not? We might seek to resolve the difficulty by reasoning thus: positive value is by definition good; therefore a greater degree of positive value is better than a smaller degree; and all values are commensurable; but it is almost certain that the survival of the human being would occasion more positive value than the survival of the rabbit—both because his more complex structure is probably capable of greater value and also because he is likely to live much longer; therefore the human being ought to be the survivor. (And if we wish we may throw into the balance the grass's potential values.)

But this reasoning, however agreeable the conclusion to the human ego, is faulty, for it is overlooked that *value* is always and only *value for* and hence that *good* is *good for*. This emendation destroys the cogency of the argument. The greater degree of positive value is better *for* the man, granted. But this we knew already; we have advanced not at all.

In saying that the alternative with (presumed) greater value *ought* to be realized, we are saying that there is potentially greater pleasantness for some organism in that alternative. But for what organism? If (1) the shipwrecked sailor, the argument reduces to a tautology, as we have just seen. If (2) the rabbit, the argument is false. If (3) the grass, we are introducing as arbiter an interested party. If (4) a supposed disinterested observer—say the reader or the author—how can any organism judge of an *ought* unless it feels greater or lesser pleasantness in the alternatives? And if *it* feels degrees of pleasantness in the alternatives, how is it disinterested? Its own values are involved. Besides, why *ought* the pleasantness the "disinterested" observer feels in one alternative (the human, doubtless) to overbalance the pleasantness the rabbit feels in the opposite

(the leporid) alternative? Because it is a greater pleasantness? Then again we have not advanced, for to what organism is *this* alternative most pleasant and so endowed with *oughtness?* Or shall we invoke the verdict of (5) all humanity? No doubt an almost exclusive majority of humanity will say that the rabbit ought to die; that is, humanity takes more pleasure in contemplating that alternative than the starvation of the poor castaway. Yes, but if humanity's verdict is to be invoked, why not also that of rabbitdom? And rabbitdom, quite exclusively we may suppose, would emphatically give us to understand that their brother should *not* die. What is to decide between the *oughts* of rabbitdom and humanity? The fact that humanity's potential value is greater? We need not go through that again. Well, shall we (6) appeal to God? Clearly an anthropomorphic deity would return, and in such cases historically always has returned, a verdict in favor of the human *ought.* There was a time when man's axiological doubts were set at rest by the agreeable assurance that he was of more value than many sparrows. But the ages of anthropomorphism happily appear to be drawing to their close, and this solution will now be regarded as having very little cogency. As for a non-anthropomorphic deity, it will be time enough to seek its answer when we are provided with some agreed-upon rules telling us how and where to seek.

In one last attempt to resolve the question—which *ought* ought to prevail?—let us ask it of nature or the universe. From nature's point of view or from the wholly impersonal, universal standpoint, ought the rabbit to suffer and die or ought the man? Well, we can ask and ask again and we shall have no answer. Even considering the universe as an organism, and supposing it possible for a finite mortal to take the universal viewpoint (which literally it is not), there is no slightest evidence that nature or the universe as a whole, or as large a part as we can directly or indirectly embrace in our comprehension, is affected one way or the other by either or any alternative. To read such affectivities into natural phenomena is to commit the "pathetic fallacy." If the man dies, certain natural consequences will follow; if the rabbit does, others. But nature, apart from those portions of her which are the component organisms concerned or their kindred, apparently cares not which.

"Ah," someone may interject, "but you are now speaking of na-

ture *apart from* certain of her parts. As you yourself have said, you must take nature as a whole, from the universal viewpoint. So taken, nature *includes* the organisms concerned, and then if the value experienced by one organism is greater than that experienced by the other, then nature taken as a whole experiences greater value in the corresponding alternative. Thus *for* nature that alternative occasions greater value and therefore it may truly be said that from the universal point of view that alternative *ought* to prevail." All this may perhaps be granted, but does it serve to resolve our difficulty? Only, I think, in a merely verbal sense. For if only the (presumed) fact that the human value is greater than the leporid determines the universal value, then we know no more than we did to begin with. To decide between the *oughts* solely on the basis of the data *they* furnish is to "pull ourselves up by our bootstraps." We are attempting to evaluate two claims without taking one step beyond the claims themselves; the positive affectivity existent in nature, according to the above argument, is identical with that existent in the human being. Therefore the argument has no more real content than, "Since the human being is likely to experience greater value in his own survival than in that of *Oryctolagus cuniculus,* on that account he *ought* to survive." Such an argument would have the convenient, but somewhat embarrassing, consequence that in any conflict of *oughts* between two organisms, one of which (usually the human) might be presumed capable of experiencing greater positive affectivity than the other, the approval of the universe could always be inferred as on the side of the former.

But looking at the matter from a larger—perhaps metaphysical —point of view, can we in any meaningful sense say that nature *ought* to prefer or adopt any alternative? Do feasible alternatives really exist in nature? *Ought* propositions rest on judgments of probability; is anything probable in nature, apart from some organism's partial point of view? Or is not nature determined in such a way that the conception of *ought* is applicable only to the organisms within nature, but never to nature itself as being the totality of events? These, if real questions, are certainly difficult ones and will be carried no further at this time.

A final consideration which may make us doubt that the universe

can serve as the court of appeal in value conflicts is this: while there is little doubt that the aggregate potential value of the man's survival is *for him* greater than that of his lingering decease, does it follow that the same alternative is of greater aggregate potential value *for the universe?* The universe, it may be presumed, unlike the organism concerned will continue to exist indefinitely. Either alternative will in the universal perspective have an indefinite concatenation of consequences. Though the first consequence of the one alternative may well be a greater positive affectivity, as the consequences of each run on endlessly into the future we appear to have no reasonable option but to believe that they converge toward affective equality. There is no inferable probability, *sub specie aeternitatis,* of either a positive or a negative preponderance.

In sum, we must suppose both theoretically and practically that nature or the universe is indifferent to all apparent axiological conflicts between its components. From the universal viewpoint, that occurs which is determined to occur, regardless of the affective consequences to this or that organism. For all that the light of our intelligence can penetrate the vast spatio-temporal reaches of the great frame of things, it is as likely as not that the algebraic sum of component affectivities remains forever a neutral constant no matter what events may occur.

We shall therefore assent—regretfully or indifferently, according to our humors—to the proposition that when *ought* conflicts occur, when in fact the occurrence or non-occurrence of the same event would be the occasion of opposite values to two or more different organisms, there can be no meaningful assertion that the event *ought* or *ought not* to occur save from the point of view of some other organism which itself is independently interested in the alternatives. (The words "in fact" are inserted in the preceding statement to call attention to the condition we have assumed all along—that ought conflicts exist only when the probability is correct that both alternatives would produce opposite values for the two organisms. Let us suppose for the moment that actually, though the rabbit appears sound, it is diseased and that if the sailor eats it, he will die a horribly painful and lingering death such that starvation would be preferable. Then despite his *belief* and *desire,* in fact

he ought not to eat the rabbit and, as the rabbit from its point of view ought not to be eaten, there is no conflict of *oughts*—at least between these organisms, for that between the rabbit and the grass remains. In this case the one *ought* ought to prevail, for in fact it is identical for both rabbit and man. But this is in reality an empty conclusion to the argument, since now there is no opposite *ought*—save from the point of view of the impotent grass, which no doubt would find satisfaction in the reciprocal riddance of both.) Thus the reader might assert, in our present example, that of the two parties to the conflict it ought to be the man who survives and the rabbit who suffers. (What a lame escape from the uncomfortable necessity of considering the far-reaching question of interspecial value conflicts to postulate, as some philosophers have done, that animals cannot really be said to suffer because they are but soulless automata!) The reader's assertion would have no other meaning, however, than that he, having a certain character, finds by testing his reaction to the alternatives in implicit behavior that the mariner's survival promises *for him* (the reader) the greater positive affectivity. It will hardly be pretended that this fact, assuming the judgment to be a true one, makes it abstractly or universally the case that the human ought to, or that it is right that he should, be the survivor. No; as has been implied all along, the occurrence or non-occurrence of the event in question is in itself or from the impersonal point of view *jenseits Gute und Böse*. And this is quite compatible with the one alternative being endowed with an *ought* by the sailor, the grass, and the reader, and the opposite by the rabbit and, perchance, Timon the misanthrope. Which *ought* ought to prevail we shall accordingly regard as unanswerable, even theoretically, and hence meaningless; which *ought will* prevail is determined by the precedent existing pattern of events.

From this example we may surmise that tears are of the nature of things. The structure of the world is apparently such that no positive value can anywhere be realized but that somewhere else a negative value must ensue. At least this can be seen to be the case among the higher organisms, and especially in human affairs. Exactly as in this case of the shipwrecked sailor, every value realized in every life rests upon the prior necessity of causing disvalue to other organisms. Man's every meal is the fruit of a harvest of pain

to his fellow creatures, and *their* having survived to grace his table presumes the prior pain of others. Organic evolution is a process of values being built on disvalues.

To pick out specifically the human values and to elevate them to exclusive axiological worth, to regard them as supreme or as alone "real," to pretend that the world is purposely ordered for their fostering—this is the sign and product of egregious imperception or of ruthlessly anthropocentric arrogance. Only within the narrow confines of such an implicit attitude could there be approved as ironic a custom as piously to say grace at table, thanking a supposedly good God for a sumptuous meal of which the main dish is procured by the infliction of pain and death upon an innocent fellow creature. And blindly we teach our children the same and the like customs, stamping surreptitiously and ineradicably on their characters the same cosmic impudicity. In such innocent ways do "good people" infect after generations with the contagion of petty ignorance.

Man, throughout all recorded generations, has encouraged himself to believe, and has sanctified the belief in the disguise of religious ritual and dogma, that whatever suits his own convenience with respect to his fellow inhabitants of earth is true and righteous altogether. Hence each generation has been brought up to glory in its own preeminent worth and to slaughter its terrestrial companions without a tremor of question or regret. What future ages must be taught, if mankind is ever to emerge from a state of axiological barbarism, is that what suits man's convenience—or, what comes to the same thing, is justified by man-projected cosmic statutes—is true and righteous, *not* altogether, but only *for him* and in his own sight. The recognition of this relativity and circularity in man's ideals of value (however unavoidable such relativity and circularity may be in the human situation) is a lesson of salutary humility.

But to return after such cosmic speculations to the thread of our argument—if it were to be maintained that the personal *ought* of any organism is changed to an *ought not* whenever the negative affectivity of another organism is implicated, the consequence of such a doctrine, if it were possible to carry it out, would be the extinction from the earth of all life, at any rate above the lowest

level. Thus in our preceding example let us suppose that the empathic awareness of the rabbit's pain so works upon the sailor that he comes to anticipate greater positive value in his own slow starvation than in the remorse of surviving at the expense of his fellow creature. He has become a hedonistic altruist. His former *ought* has become an *ought not*. Accordingly, he lies down on the sandy beach (not on the grass, for he has become so sensitive and other-minded that he would not wish to crush one blade) and thus nobly dies. The rabbit, inspired let us suppose by the example of *Homo sapiens,* decides that it too can no longer endure the unpleasantness of bringing negative value to fellow organisms. It therefore lies down on the sand also and dies. Moved by these two exemplars of ultimate altruism, each blade of grass gives up its life lest it bring disvalue upon its fellows or on smaller plant organisms striving to grow in its shade. Spread no doubt by wondering fishes, this benevolent aberration covers the earth. The result is of course total suicide, save for the lowest viruses, subsisting perhaps by inorganic means. (If we adopt the hylozoistic view, the mortiferous consequences extend indefinitely.) Nor is this result to be considered tragic; on the contrary, each creature, in its newly acquired mantle of altruism, has done just what it ought to have done to realize its maximum happiness, and thus the whole of living creation has passed away in a burst of supreme felicity.

Now all this, of course, is perfectly absurd. Typhoid bacilli are no more capable of magnanimously sparing men the miseries of disease than is a stone of falling upwards. These are hardly "feasible alternatives" within the meaning of our definition of the *admonitory ought*. Only men, with their two-edged gift of sympathetic intelligence, would be capable of such altruism, and even then only the most abnormally sensitive among men, in the most eccentric circumstances. (The latter clause would almost of necessity imply a man's being alone in the world, for no man would find value in sparing a rabbit or any number of rabbits if his consequent death were to cause disvalue to cherished fellow humans.) Accordingly, since universal altruism is all but impossible, the life-process it seems must go on allotting value and disvalue now to this organism, now to that. And as between these allotments there is no *ought* save as constituted by the idiosyncratic preferences of some other organ-

ism. As in the pious custom of "saying grace," how arbitrary and inconsistent such preferences may be is evidenced by the injunction of humans to one another to "be kind to animals," while daily thousands of dumb creatures are sordidly murdered to put carnal food on human tables, or is evidenced even more glaringly by acquiescence in the bestowal upon such activities as fishing, pheasant-shooting, and fox-hunting of the honorific epithet, *gentlemanly sport.*

So much for our parable of the shipwrecked sailor and its implications. The reader may call it fantastic or trivial if he will, but it illustrates in miniature some of the least trivial issues in ethics and theory of value. It was chosen specifically to get away from the narrowly exclusive human point of view, to which too much of ethical speculation has been confined. None the less the conclusions at which we have arrived with its aid apply to parallel human *ought* conflicts. Ought the Romans to have destroyed the Carthaginian civilization? Ought the barbarian hordes to have destroyed the Roman? Ought the Spaniards to have destroyed the Mayan, Incan, and Aztec? Ought the descendants of European colonists to have destroyed the cultures of the American Indians? On what principle of justice did Xerxes invade Hellas, or his father the Scythians? The several parties to each dispute believed in and fought for what they considered right. The intriguing question again suggests itself—in each case, which *ought* ought to have prevailed?

Consider the second cited historical occurrence. From the Roman point of view, the alternative of the barbarian rout abiding in Central Asia and perishing upon the desiccated steppes promised the greater value. This was the alternative which for them ought to occur. They therefore took such measures as they were able in their enervated condition to promote its occurrence. From the barbarian point of view on the contrary, their homeland becoming increasingly uninhabitable, the alternative of seizing the rich lands of the West promised the greater value. For them this alternative ought to be chosen. They therefore invaded and despoiled the remains of the Empire. In so doing they inevitably waged unprovoked, aggressive war, committed murder, pillaged, and destroyed a civilization. Ought they to have done so? From their own point of view, yes; from the Roman, no. Is this the end of the matter? Yes, unless it is

specified from the viewpoint of what organism a further *ought* is to be determined. Well, suppose we say from *our* point of view—from that of the twentieth century social organism. Looked at from this perspective, the decline and fall of the Roman Empire will be found to have had so many and such momentous consequences, some positive in value, some negative, and the alternative consequences which may be supposed to have followed the repulse or quiescence of the barbarians being equally diverse and far more obscure, that we shall hardly venture to assert an *ought* one way or the other. At most we may agree that certain aspects of history's greatest catastrophe resulted in negative value for all parties concerned and for posterity—notably, the wanton destruction of the treasures of ancient art and learning. This truly ought not to have been allowed to occur, not even from the point of view of the barbarians had they understood their own interests. But supposing that we judges of the twentieth century *could* agree upon a general verdict, why should that change or overrule the *ought,* existent in fact, of the Romans or barbarians, whichever one our verdict disagreed with? If the value consequences of the alternatives were correctly judged by the several parties, their respective *oughts,* under our hedonistic definition, remain just as valid as before. We are reduced to our former conclusion—that when two valid and mutually exclusive *oughts* exist, a decision can and will be made between them only on non-ethical, non-axiological grounds. Such, so far as our knowledge extends, appears to be the way of the world. In the present example the historical decision was made by the animal vitality of the wandering peoples and the civilized caducity of the Romans.

The conclusion is reinforced by a consideration of ultimate *ought* conflicts, not only between species (as in our parable of the desert island) or between races and cultures, but also between society and the individual. Let us suppose a man like Raskolnikov, disposed to murder, but without Raskolnikov's weakness and remorse. That is, let us suppose a man whose character is so constituted that the pleasantness he would derive from a particular murder would *in fact* outweigh the unpleasantness to him attendant upon any and all consequences, that is, the aggregate potential positive value of the murder is greater than its aggregate potential negative

value. However odd and repulsive it may appear, it follows from our definition of the admonitory ought that, *from his own point of view* such a man, or maniac, *ought* to commit the contemplated murder. But from the point of view of society murder *ought not* to be committed, on this or any other occasion, since the toleration of murder would most certainly result in the dissolution of the social order and the sacrifice therefore of its preponderance of positive value. Society has accordingly established the strongest sanctions against the individual taking of human life (but not, of course, against the taking of other than human life since mankind has not attained to such lofty heights of altruism, sympathy, and a feeling for universal brotherhood as to have become sensible therein of any effective degree of negative value). These sanctions we will suppose in full force; the man or maniac knows that in consequence of the murder he will be loathed, despised, hated, friendless, hunted down, and at last have his own life violently terminated; he will in short, sacrifice every positive value which motivates the normal individual. Such sanctions are in the vast majority of cases sufficient to endow with aggregate potential negative value any contemplated act of murder. But not in this case; for we are supposing that for this abnormal individual the positive value of a murder will overbalance all such sanctions.

Here is a plain conflict of *oughts*. Once more, which *ought* ought to prevail? There is no doubt which *will* prevail if the conflict is brought to light prior to the event: without any compunction society will by force confine this man to an insane asylum. For society this latter act of violence is right; but for the would-be murderer it is wrong, for it deprives him of the positive value he would have derived from killing someone. The respective *oughts* remaining as they are, there could never be any resolution of the conflict axiologically; it must find its resolution in the natural determination of events—either by the deliberate commission of a murder in despite of society's *ought not* or by the deprivation of an individual of his liberty in despite of his *ought*. To use a commoner term, this issue, like that between the human and the leporid species and those between incompatible civilizations, must be resolved by *force*.

It may be of interest to pause a moment to consider the moral situation were this Raskolnikov a superman, that is, a man by hy-

pothesis endowed with sufficient certain power to avoid the affective sanctions attached by society to ordinary human conduct. Would society's moral *oughts* and *ought nots* apply to so self-sufficing a creature? (Every human being, by the way, is born a little superman in his demands upon his environment, human and non-human; ultimately it is only various applications of social and natural *force* which teach the infant that he is not a superman and render him a character feasible of being allowed the blessings of social and political liberty.) The reader may be permitted the pleasure of following out for himself this engaging but of course purely hypothetical question. An answer, consonant with the postulates of our system, may however be suggested in the following proposition: the relation of a superman to ordinary human beings would be precisely analogous to the present relation of ordinary human beings to animals. If a man *ought* morally to "use" animals unrestrainedly for any purpose that suits his convenience or whim, then it is difficult to see on what grounds a superman *ought not* morally to "use" men for any purpose that would suit him; if, on the other hand, hedonism suggests reasons why men's actions toward the lower animals should be restrained by humility, sympathy, and kindness, then hedonism would also suggest the advisability of restraint on the part of the superman in his dealings with mankind. To attempt, however, passionately or indignantly to persuade a superman of the universality, the inherent nobility, the binding obligation, or the eternal sacredness of *our* moral standards would be a spectacle worthy of the laughter of the gods.

In general, no conflict of values is resolved axiologically—which means, among other things, by any determination of *right* or *wrong*, *ought* or *ought not*—unless by change of heart or by their mutual influence on one another, especially through immediate sympathy, the two parties come to experience value in the same object or action. Otherwise the resolution, if there be any, is extra-axiological —roughly speaking again, by *force*. The latter word will be understood as including in its denotation what are possibly the most common cases of extra-axiological resolutions of value conflicts—namely, resolution by death and disappearance of one or both of the parties. History clearly shows that few of its great problems in conflicts of value have ever been resolved within the generation

or generations in which they were embodied. The result has been for the most part an inconclusive, and often highly destructive, strife followed by the death, natural or otherwise, of the protagonists and a disinterest in the whole matter on the part of succeeding generations. The conflict has been resolved extra-axiologically by, we may say, the force of nature's momentum, by her refusal to stay her onward course until one side can "persuade" the other of the superiority of its *ought*. A typical example is the Thirty Years War; the divergent values involved never came near to resolution. The ugly matter was "settled" by the refusal of following generations to concern themselves to the extent of coming to blows over issues which had lost their preeminent interest.

Other *ought* conflicts, however, appear to persist through all generations. Such is the perennial issue of rationality versus the cult of the irrational, reason versus sentiment, the primacy of the intellect or the will, empiricism versus intuition. The conflict flourishes in our times: on the one side (the tough-minded), the sciences and most of philosophy, and the best of the democratic tradition; on the other (the tender-minded side), the innumerable forms and gradations of dogmatism, mysticism, and ossified religion, particularly Roman and Orthodox Catholicism, and the totalitarian State, particularly Soviet communism. Historical experience gives us no cause to expect that the latter camp will ever be induced to alter fundamentally its valuations by any amount of reasoning or rational evidence, nor that the former will disown *its* valuations by the appeals to tradition, faith (that is, spiritualized prejudice), projective emotion, ignorant credulity, and infantile wishful-thinking which are the forensic stock in trade of the anti-rationalists. Most of the fundamental valuations of these two great divisions of mankind are as opposite, as mutually exclusive, and as irreconcilable as the cosmic light of Ahura-mazda and the cosmic darkness of Ahriman. Whenever they clash—which is a daily occurrence—that *ought* prevails, now one, now the other, which is determined by the force of extra-axiological circumstances. To each party, because it feels positive affectivity in the presence of certain objects and actions, its ought *ought* to prevail. There is no third, "disinterested" party to decide the issue. Therefore, if the issue should ever reach the field of Armageddon—and it appears as close in our day as at any other

period in history—it will and can only be decided by a resort to brute force. Let those who hold to the ideal of rationality be warned and prepare. No reasoning whatever, short of the *argumentum ad baculum,* can serve to convince those who find their values in unreason. Their ways will be altered only if those whose faith is in reason so alter social circumstances that irrational conduct results in an evident preponderance of disvalue.

The conflicts of irreconcilable *oughts* which we have been discussing occur not only, as we have seen, between species, between races, cultures, and civilizations, between society and the individual, and between contrarily minded groups within society, but also between individuals as such. (The mariner and the rabbit may be considered in this light.) Value conflicts between individuals are, of course, an everyday occurrence. Usually, but not necessarily, the parties represent larger groups. If they are members of the same group, and their conflict of *oughts* approaches the stage of violence, the decision between them will be made by the group. Ordinarily the prevision of this fact is sufficient to change the potential value and hence the *ought* of one of the individuals. Thus, let us suppose once more that our Raskolnikov finds that for him potential positive value adheres to the act of murdering x (x of course finding potential positive value in not being murdered). Ordinarily, when it is forcibly brought to the attention of the former that the common group (society) holds with x that the contemplated murder ought not to occur, he will come to be affected in such a manner that his own *ought* will change to an *ought not.* (To remind the reader that *consciousness* has nothing essentially to do with valuation, it may be imagined in this instance that our Raskolnikov would go on telling himself and actually believing consciously that he still *ought* to murder x, but if actually he refrains from *doing* it, then no matter what he may say or "have in mind" his *ought* has been changed to an *ought not.* He has revaluated the situation subconsciously.) The conflict may then be said to have been resolved within the axiological realm—both individuals have come to an agreement on the values involved. But it is to be noted that, even so, the resolution has been achieved only by the threat of *force.* And if, as we saw before, our Raskolnikov is of such a character that his valuations cannot be altered by the threat of social force, the resolution of the conflict

will be carried entirely out of the axiological realm, for then society, in furtherance of its own potential values, will employ actual force.

Living, as we almost necessarily do, in social environments, such are the usual resolutions of value conflicts between individuals. But if we suppose two individuals quite out of a social environment—cast up on a desert island perhaps (though even in such case the social influence would not be wholly escaped)—the resolutions must needs be precisely parallel. Here in cases of conflict—ineluctable and irreconcilable—the threat of force on the part of the stronger would produce a quasi-axiological resolution, or the actual employment of force—overt if by the stronger or surreptitious if by the weaker—would produce a resolution of a completely extra-axiological nature.

In those cases where a conflict of *oughts* between individuals is decided in favor of the one or the other by the superior force of society, such force often operates through codified law. This fact introduces no new principle; from the viewpoint of axiology a law is itself a form of *ought,* being an assertion of the probability of the occurrence of greater value in one specified situation than in another. The probability rests on the fact that a law, to qualify as such, must prescribe a penalty for its own violation and this penalty must be of a nature such that the majority of individuals would experience negative value in its imposition upon themselves. Basically, a law is a statement by a particular group that under certain circumstances a certain degree of unpleasant force will be employed against an individual or another smaller group. As a prediction it operates to establish motives for future conduct, hence to create or to modify potential values, and hence to influence individual or group *oughts* in type situations. In so far as it operates in this manner, it is of an axiological character; when, however, its sanctions are forcibly imposed upon an individual or group without their value judgments being altered, it operates extra-axiologically as far as they are concerned. In either case, every law is a limitation on liberty. Yet paradoxically it is just the law's limitation on liberty in some ways which makes possible the securing of liberty in many other ways, that is, law operates to associate negative value with actions with which otherwise positive value would have been associated, thus inducing

a desistance from those actions; or for those not to be influenced axiologically it prevents their acting in certain ways either by detention or by extinction, the result in either case being that others are free to act in inversely related ways with a rational expectation of positive value. For example, by associating negative value or forcible extinction with robbery or assault, the law limits the scope of rational choice on the part of those who are inclined to such amusements, while at the same time it enables others to find positive value in walking the streets after dark, among other innocent activities, which but for the law might not have been advisable. At the same time that it reinforces the latter persons' *ought,* it either changes the *ought* of the former to an *ought not* or, in the application of its sanctions, it removes such persons by force from the social scene.

At the risk of repetition it must be emphasized that when society's laws operate to prevent the fulfillment of any person's *ought* by the imposition of external sanctions, such an occurrence, however "right" from the point of view of society, is none the less "wrong" from that of the affected and unconvinced individual. To hold that the "right" of society ought, as a matter of principle, to overrule the "right" of the individual is to rely upon a dangerous convention—dangerous because, as history richly illustrates, society is by no means always right and the individual wrong when their valuations are in disagreement; and in so far as it is pretended that society's ought-supremacy rests on rational grounds, the supporting reasoning must of necessity involve an invalidating tautology: namely, that there is no meaning to any *ought* or *right* which is not *for* some individual or some group, and here, obviously, society can maintain that its *ought* ought to prevail only because it is right for society that it should—which is as good as no reason at all. To put it bluntly but honestly, the laws of society prevail when unchallenged because of the inertia of habit, and when challenged, not because of any abstract or absolute *oughtness* in the situation, but simply because society is stronger than the solitary individual or petty group.

There are only two means of escaping what to some, especially the idealistically inclined, may appear to be an unpalatable dilemma: firstly to suppose that one or the other of the *oughts* must be

mistaken, so that in reality it is not an *ought* but an *ought not;* or secondly, to assert the existence of a higher, perhaps transcendental, *ought* which will discern and decide in the conflict of the two lower. (To say that the *oughts* do not "really" conflict—that the apparently acrimonious and desolating value conflicts which life exhibits daily are mere "illusions" of some sort or other—this is a possible third view of the matter which I should not think it worthwhile to dignify with an answer.) The first means of escape is ruled out by hypothesis, since this whole discussion is based on the premise that the divergent *oughts* are both true *in fact;* if one were mistaken, then evidently it were best that it should not come to fruition even in the absence of any competing *ought.* The second means of escape is excluded by the indemonstrability of the existence or locus of any *ought* of superior degree. Upon the many historical attempts at such demonstration the author of the present work can at best render the Scots Law verdict of "not proven." But even if an *ought* of superior degree were demonstrated, the conflict would remain—being but transferred one step higher—unless it is assumed that the higher *ought* has the power of transmuting the lower to an *ought not,* that is, the power of arbitrarily causing an organism to feel negative affectivity in its relation with an object where positive affectivity would otherwise be felt. Our whole experience with the privacy and isolation of value occurrences and the impossibility of influencing them in any direct manner—our efforts to that end being necessarily confined to "leading the horse to water"—makes the existence of such a center of influence seem incredible. Whether an organism finds positive or negative affectivity in the relational contexture codetermined by a particular object is simply one of the brute facts of nature and nothing could make it otherwise short of altering the entire past pattern of events in the universe. If we wish that a certain organism should not find positive value in a certain object, our only recourse is to associate it with other objects such that we believe the total situation will produce aggregate negative value. But if, as it turns out, the organism is so constituted as to find positive value in that certain object no matter what is associated with it, there is no further way in which we can influence its affectivity. We can then only employ physical means

for preventing the relational contexture from occurring at all, and this, as we have remarked, is an extra-axiological solution to the value conflict.

That society operates as well as it does is based on the fortunate fact that by and large the very great majority of individuals experience *ought* and *ought not, right* and *wrong, good* and *evil, obligation* and *responsibility,* and the like—all of which are derivative from the forms of potential value—in connexion with the same classes of objects and actions. Herein precisely lies the task of the legislator: so to arrange matters politically and socially, by the aid of education and legal sanctions, that at least in cases important to the public welfare private values are made identical with public. (When we say for convenience "values" in this connexion, let us always remember that actually *means* would be the more accurate term; no *values* ever literally conflict—they cannot, being privately experienced data; what conflict are overt *means,* each "having" potential positive (instrumental or terminal) value for different organisms, but incompatible of actualization with reference to the same time and circumstances.) Without such substantial affective agreement on the means to value society would—and in fact, as history shows, society does—disintegrate into something not unlike the savage state of nature portrayed by Hobbes. However—*pace* Hobbes—it is not *reason* which makes social cooperation possible, but gradual adjustments of *affectivity*. The long processes by which such adjustments are accomplished are to be explicated by anthropology and sociology. Possibly in the human realm the principal factor concerned is the trait of *sympathy* (etymologically, the trait of "being affected along with"). The process must be repeated on a smaller scale in the social education of every individual, the explication here coming within the province of psychology. In either case, the process of adjustment must entail much of an extra-axiological nature. Every society is built upon the physical extinction of other societies with rival, incompatible values; the training of every individual must entail the forcible suppression of potential value experiences considered undesirable by the group.

Lastly, in addition to conflicts of values between species, races, cultures, and civilizations, between society and the individual, between contrarily minded groups within society, and between in-

dividuals as such, we find as everyday occurrences conflicts within each individual. A man ought to perform a certain action at a certain time, that is, it is probable that the performance of the action would occasion him more positive value than the non-performance; but there is another action (means) which also he ought to perform at the time in question, for the same reason. Now he cannot do both. According to the hypothesis of hedonism he will be determined to choose the one which in contemplation (implicit behavior) is associated with the felt greater degree of pleasantness. But that determination in nowise negates the *ought* which is established by the aggregate potential value of the other act. Though from the point of view of the whole individual his final choice, assuming it to be based on probabilities which are correct in fact, is *right,* nevertheless from the point of view of so much of his personality as is bound up with, or interested in, the rejected action, his overriding choice is *wrong,* that is, from this point of view, which may be one very dear to him as an individual, the chosen alternative will occasion negative instead of positive value. Such is the source of most of the poignancy, indeed the tragic tone, of individual existence in the flowing scheme of things. Not only love, as Sappho sung, is bitter-sweet, but life. Rarely do pleasures come purely—that they do so in art more than anywhere else is its crowning glory; for the most part, every pleasure is to be had only at the cost of consequent displeasure. Not even the saintliest among men, be his value choices ever so correct, can do those things he ought without at the same time doing indefinitely much that he ought not. Fortunate the man who can actualize a maximum balance of value for himself—and fortunate we if his maximum is actualized through objects and actions which contribute to *our* values.

Having discussed the various forms in which conflicts of value occur, we may next raise the abstract question—*why* basically *do* value conflicts occur? If by "why" is understood "to what end" or "with what in mind" or "for what purpose," the question is unanswerable; such interpretations would have meaning only from the point of view of some supreme organism which exercises choice over all the alternatives of the universe. As we have stated, such a postulation will here be regarded as unacceptable by reason of its

inaccessibility to verification and for lack of any useful heuristic consequences which flow from it. But understanding "why" to signify, "from what observable circumstances may the existence of value conflicts be inferred," we may perhaps propose a general answer.

Conflicts of value arise from the fact that objects and organisms bear not unique but multilateral relations to one another. At each moment in the flux of events, only a determinate set of possibilities can be realized out of a total number indefinitely large. If each object or event could be related to no more than one organism, or each organism were determined to find the same affectivity as every other in relation to the same object or event, then there might be no value conflicts. The former supposition, however, would require the existence of a private universe for each center of affectivity, the latter some sort of preestablished axiological harmony. Obviously, the universe we experience is not so constructed. Hence, conflicts of values must be regarded as in the nature of things so long as organisms continue to feel positive and negative affectivity in the existence or non-existence of common objects. For, in general, every event which occurs in the universe *ought* to occur from the point of view of some organisms and *ought not* from that of others. Every action is *right* for some and *wrong* for others. These propositions are inferences from observed behavior. Simultaneously we see the hunter exult and the hunted cry out in extremest agony; we felicitate with the chosen, and commiserate with the rejected suitor; the race run, we crown the strong with laurel and unctuously remind the weak of other days to come; we buy from this merchant and so put it out of our power to profit another no less worthy; the rain which spoils the laborer's poor holiday cheers the farmer's heart; one dead lion, one live lamb; one dead lamb, one live man; one dead man, one live lion. . . . What we do *not* observe, however, is that nature as a whole—or the largest portion of nature we can embrace within the range of our understanding—behaves in any manner, no matter what events occur, from which we may properly infer the slightest affectivity, positive or negative. The universe is, therefore, so far as our knowledge extends, beyond felicity or suffering. From the universal point of view the cate-

gories of *ought* and *ought not* are inapplicable. The course of nature is to all appearances extra-axiological.

These inferences lie at the base of one of the deepest teachings of Buddhism, that least anthropocentric of religions. Man is an organism so wonderful in complexity that he apparently may find value in any object, even sometimes in pain as do the martyr and the masochist. Paradoxically, therefore, man may, as we have suggested earlier in the argument, find value in the adoption of nature's point of view, that, namely, which sees all things indifferently and without the experience of *value,* that point of view from which all things are noted as events in the all-engulfing stream of Becoming—noted simply, without hope or fear, satisfaction or regret, joy or sorrow, triumph or despair. These affections will seem to such a man natural but petty, valid perhaps but partial, insignificant in the universal aspect. He will necessarily of course—and this is the chiefest difficulty—have learned to look with imperturbable indifference even upon what occurs to himself, so far as the frailty of the human frame permits. As the reward of his breadth of philosophical perception he will have achieved the finest and most enduring value which can fall to man: that calm and exalted felicity which is his who has placed himself, as a center of affectivity, beyond the influence of change, whether to himself or to others or to any part of nature, and who has declared and established his independence of the ceaseless mutation of all things. Something like this, so far as human reason is given to understand, is Nirvana, the release from liability to suffering, and such the mode of entry into the company of the Enlightened Ones.

Needless to say, the strict and consistent adoption and living out of such an attitude, thus somewhat hyperbolically expressed, exalted though it may be in the abstract, is impossible under the circumstances of mundane life. It would imply complete inactivity as far as purposive behavior is concerned. We cannot but suffer with our friends, hope for better fortune, strive for that which we cherish, regret the passage of happy years, triumph in great achievements, and generally feel ourselves involved in all the affective influences of the society in which we live. None the less, the ideal pleasure of renunciation may remain as a gentle but constant in-

fluence on our daily valuations, in which case the pattern of our affective experience will issue in something very like the rules of the Garden for the good life: the positive values which happen to us we shall accept gratefully, but we shall esteem none worthy of immoderate anxiety; the negative values we shall weaken by seeing them from the universal, timeless point of view, and we shall not wish to go beyond honorable lengths to avoid the necessity of their sufferance. These would be our precepts, because fundamentally we should acknowledge as our highest source of value the cultivated habit of looking upon all things without the experience of particular consequent values. It is as if the existence of each organism were by nature endowed with a gentle, inherent, pervasive, and enduring quality of positive value which, if the mosaic of particular values overlaying and obscuring it be but removed, will shine forth and aureole that center of experience with the light of its own highest natural good.

The foregoing account of the meaning of the term *ought* has at least the merit of giving an unequivocal answer to several difficulties which have been alleged in a teleological, and in particular a hedonistic, theory of value. It has, for instance, been asserted that hedonism necessarily implies the "logical fallacy" that the same action both ought and ought not to be performed, for it may well happen (as indeed we have seen) that the action would give pleasure to A and simultaneously displeasure to B. This fact, it is argued, is the subversion of morality, for unless there is an objective rightness and wrongness which attaches to actions, how can any stable and accepted norms be possible? To regard this admitted relativity of actions as a *logical* fallacy—presumably as a violation of the principle of contradiction—is quite obviously an example of *petitio principii:* there is not even the suggestion of a fallacy unless it is first assumed that *ought* is an objective quality attaching to actions. If *ought* is defined, as here, as existing only within particular relational contextures and as being always an *ought for* some organism, where is any fallacy in the holding that the same action ought to be performed *from A's viewpoint* and *from B's* ought not? Not only is there no logical fallacy involved but the a priori supposition of one, with the consequent wild goose chase after an absolute, ob-

jective, and exclusive *ought* attaching to every human action (and why *human* particularly?), has been the bane of ethics for over two thousand years and the *ignis fatuus* which perhaps more than any other circumstance has vitiated all attempts to establish a scientific, observably verifiable theory of conduct.

To turn from the alleged logical difficulty in the present view to the teleological—that stable ethical norms are rendered impossible—be it first said that the presumption of any stability which approaches rigidity is in moral matters a second and hardly less harmful *ignis fatuus.* Heraclitus has reminded us that *all* things flow. Ethical norms are no more nor less stable than the patterns of affective reactions upon which they are based. In view of changing conditions in the environment, which must be met by altered standards, we have sometimes cause to be grateful that they are no more stable than they are; indeed, it is a question of some interest whether human standards, such as they are, have not in the light of history been at certain epochs too stable for mankind's own good (pleasure). We see an instance in our age in the norms associated with nationalistic patriotism. As for mutual acceptance of judgments of right and wrong, that depends on the several organisms concerned being affected in like manner by like acts. It *may* be, to start with, that a given action will seem right to A and wrong to B, but in the great majority of cases awareness of each other's reactions and awareness of the more stable, perhaps codified, reaction of the environing social group, together with the consequent greater foresight of the results of either alternative to the self, will produce substantial affective sympathy such that one or the other *ought* or *ought not* will be altered into its opposite, or both will be compromised toward a common center. As between human beings living in a civilized society, it is in comparatively few cases, fortunately, that an *ought* conflict cannot be brought to agreement and must finally be decided in an extra-axiological manner. To acknowledge that there are such cases is not to destroy the possibility of a system of morals; it is but candidly to recognize that the realm of the moral has definite limits.

In answer then to the question, Is not the admission of a relativistic basis of *value* or *oughtness* the breakdown of morals?, the most that the author would be disposed to concede is—for primitive

people (which includes the masses in every society), perhaps yes; for cultured individuals, no. As has been suggested in a connexion similar to this, a little learning is a dangerous thing, and a little learning is all the primitive mind is capable of. Inevitably any difficult truth or noble beauty which is laid before the masses, if not simply ignored, will by their taking it up become misshapen into a facile half-truth or an ignoble prettiness. So with any reasoned theory of value, hedonistic or otherwise, and the morality which it implies. In the primitive quasi-understanding and distortion it would be likely to become an instrument dangerous to themselves, to society, and to civilization. The masses always (and all men most of the time) live by illusions—illusions which blur the harsh, clear outlines of things as they are and surround each tender ego with vast, amorphous balls of silken fluff, so that reality shall never grate upon it, nor any ego too closely fret another. The masses are best left so to live, or the alteration of their illusions to be attempted only in the course of centuries. Axiology is a science for those who have ears to hear. (If any reader thinks the foregoing remarks harsh in tone, let him refresh his memory of the parallel, but much harsher adjuration of Jesus, as reported in the Evangel according to Matthew, VII, 6.)

A number of otherwise paradoxical practical situations are elucidated by the hedonistic admission of relativity. We may take an example—although as the present work does not pretend to expound the applications but only the theory of a system of value, we shall be content with but one: it is both valid and consistent to maintain that a certain savage tribe *ought not* to indulge in the practice of head-hunting and that any particular member of the tribe *ought* to do so. This is to say, it is probable that the tribe would experience a greater aggregate positive value in living at peace with its neighbors, adopting an agricultural mode of life, changing to supernatural beliefs (if any) of a less violent kind, and so on—these alterations of habit being regarded as feasible alternatives; while it is probable that in his tribal environment any individual member would find the greater aggregate value in conforming to custom—unless, indeed, he is a most exceptional individual and has potentialities for appreciating the martyr's values (literally, as always, the martyr's *means to* value). It follows, under the hypothesis of

hedonism, that where circumstances essentially similar to these exist in fact, it may well be simultaneously *wrong* for a group to act in a certain way but *right* for an individual, or *vice versa.* The recognition of this fact eliminates more difficulties and paradoxes in the application of classic moral theories than there is here space even to mention.

Of far-reaching, indeed crucial, importance is another difficulty (referred to in the Introduction to this essay) which, it may be claimed, is overcome in this hedonistic account of *value.* It is said that propositions involving the notion of *ought* or any of its associated terms are not open to the predication of truth or falsity, or to the procedures of verification or disproof, observational confirmation or denial, that such propositions are therefore of a different order than propositions concerning matters of fact, and hence that the inclusion of ethics, or of axiological matters in general, within the bounds of scientific activity is impossible.

I believe this to be a radical mistake which serves only to perpetuate the disastrous artificial division between the so-called factual and the normative disciplines and to give gratuitous aid to that tribe of theological and other obscurantists whose interest it is to preserve in sacrosanct *rigor mortis* their preempted domain of human morals. In the light of our analysis it may readily be shown that *ought* propositions are not *sui generis* save in the non-essential character of having as their subject matter a certain class of natural events; formally and logically, as we have seen, they are identical with propositions concerning matters of fact—indeed we hold them to be a species of such propositions.

As our analysis has indicated, an *ought* is embodied in a complex assertion consisting of five component assertions: (1) that a certain object "has" potential value for x, (2) that a certain other object "has" potential value for x, (3) that these objects are mutually exclusive alternatives (that is, contradictory or contrary, usually the former), (4) that the attainment by x of either alternative is feasible, and (5) that the potential value "in" one object is greater than that "in" the other.*

* The technical material from this point to the last paragraph on p. 175 may be skipped by the non-technical reader.

Let us, in our tentative notation, symbolize these propositions. We shall assume that the particular *ought* in question refers to terminal values (for back of every instrumental value must lie a terminal value), to values which are simple, not aggregates (for aggregate potential values are but the sums of more or less extensive series of simple values, and to take aggregate values would but complicate the symbolism), and to objects which are contradictories, that is, true alternatives, such that one or the other but not both must occur. (In any case of *ought,* if the alternatives are merely *contraries,* an additional premise of some sort is necessary. For instance, "You ought to go to symphony A rather than to symphony B" has no force unless x already intends to go to one or the other or unless we add a second *ought* based on *contradictories,* "And you ought to go to one or the other rather than not go to either," the alternatives here being such that x must necessarily adopt one of them.) We shall also assume that the values in question are direct—for the sake of simplicity, since any indirect value must needs be based on a prior direct value.

1. (t) $p_1x \cdot p_2z \cdot p_3(xz \supset P)$

where, as before, p_1, p_2, and p_3 are the probabilities respectively asserted of the occurrence of the three component conditions.

2. (t) $p_4x \cdot p_5z' \cdot p_6(xz' \supset P')$

where z′ is an alternative object or action.

3. (t) $xzVxz' \cdot \underset{\sim}{\infty}(xz \cdot xz')$

where the symbols V and ∞ have their usual logical significance, respectively, of "either . . . or . . ." and "not."

4. (t) $p_7xz > k \cdot p_8xz' > k$

where k is an arbitrary constant of probability between 0 and 1, chosen with a view to giving a convenient and agreed upon meaning to the term *feasible.* (The sign > has here its mathematical meaning of "is greater than.")

5. (t) $p_1p_2p_3P > p_4p_5p_6P'$

Now let us translate these symbolic propositions into approximately equivalent verbal propositions:

1. Referring to a certain time (t), there is a certain probability that x (an organism) will be capable of response to a particular object (z) and there is a certain other probability that the object will be capable of stimulating x and there is a certain other prob-

ability that if a stimulus-response contexture occurs between x and the object, pleasantness will also occur within the contexture in a certain degree (P).

2. Referring to the same time (t), there is a certain probability that x will be capable of response to another particular object (z′) and there is a certain other probability that this object will be capable of stimulating x and there is a certain other probability that if a stimulus-response contexture occurs between x and the object, pleasantness will also occur within the contexture in a certain degree (P′).

3. At the time referred to, either one or the other of the stimulus-response contextures must occur, but not both.

4. The probability of the occurrence, at the time in question, of either alternative stimulus-response contexture is greater than a certain constant agreed upon as the measure of *feasibility*. (If we regarded one alternative as less than k in probability, we could not meaningfully say that x *ought* to choose either it or its contradictory, for we should imply the one to be impracticable, if not impossible, and the other as almost inevitable.)

5. With reference to the time in question, the potential direct positive terminal value ensuing upon the first alternative object is greater than the potential direct positive terminal value ensuing upon the second alternative object.

It is now evident—and the point is of crucial importance—that each of these component propositions, whether stated verbally or symbolically, is an assertion concerning a matter of fact, and hence is theoretically subject to verification by the accepted procedures of empirical science. The word "theoretically" is used to indicate that there is no *prima facie* reason to consider these propositions operationally unverifiable, but that it may well be possible that at present the precise techniques necessary for such verification are undeveloped, unknown, or (which is most likely) are *pro tempore* impracticable of conclusive application because of the baffling complexity of the subject matter. None the less, assuming our analysis to be correct, we have arrived at a result, the implications of which are of the most far-reaching character: since *value* and *ought* are the central conceptions of ethics, and since the one has been identified with the immediately or mediately observable data of affectiv-

ity and the other with a set of factual relations designable without remainder by a complex verifiable proposition, ethics as an isolated, distinctive discipline vanishes and becomes a particular field within the domain of empirical science. Just as by the effect of a hard-won accumulation of concepts and procedures physics, chemistry, psychology, sociology, astronomy, and the rest, were historically enabled to free themselves from speculative philosophy and set up as autonomous but interrelated empirical sciences, so now the time is ripe and the way has been pointed out (in however tentative, general, and inadequate a manner) for ethics to join them. As we shall show briefly later, the hedonistic theory of value leads equally to the emancipation of aesthetics and any other discipline in which necessarily occurs the concept of *value,* hitherto regarded as isolated and intractable. The recognized science to which these new sciences become most closely allied is evidently psychology—though scarcely less close are sociology, anthropology, biology, physiology, and, so far as it may be called a science, history.

As ethics and aesthetics comprehend the chief factual material now supposed to appertain to philosophy, their removal leaves philosophy essentially with nothing but its proper function of the study of scientific method, which in a broad sense may be conceived of as semiotic, including both logic and mathematics (in their formal aspects) on the one hand, and semantics, pragmatics, and linguistics on the other. (The disappearance of the "cobweb science" of metaphysics or the transmigration of its supposed functions to other regions of knowledge has, in the author's opinion, some time been accomplished. The subject will not further be discussed here.) Thus we are now within sight of the time when all matters of fact will have been brought within the domain of unified science and the once all-inclusive philosophy have been reduced essentially to the investigation, elucidation, and manipulation of purely formal material.

Now let us illustrate the practical meaning of the present conception of *ought,* and incidentally certain aspects of the remarks in the preceding paragraphs, by the analysis of several instances in which an *ought* may be asserted to occur.*

Suppose that a certain individual, x, contemplates the murder

* The technical material from this point to the second paragraph on p. 180 may be skipped by the non-technical reader.

of another individual while the latter is sleeping tonight. If we assert, either overtly or implicitly, the proposition, "x ought not to murder so-and-so tonight," what according to hedonism is the real meaning of this assertion and in what manner is its truth or falsehood operationally testable? With this assumed material let us fill up the molds of our component *ought* propositions.

Referring to a time some twelve hours hence:

a. It is highly probable that x will be capable of response to one of the alternative objects in question (here the complex situation, "so-and-so murdered by x").

(1) Symbolic equivalent: (t) p_1x

(2) Test: an inference from (a) x's present character (determined by mental and physical examination, if necessary); (b) x's past history (a regular problem in historical testimony); and (c) the present state of affairs in so far as it is likely to hinder, permit, or promote x's responsiveness.

b. It is highly probable that the object (so-and-so murdered by x) will be capable of stimulating x in its normal character of "a murder."

(1) Symbolic equivalent: (t) p_2z

(2) Test: an inference from an indefinitely large sampling of past instances of private murders in a social milieu similar to the present one.

c. It is probable that, if the x and object stimulus-response contexture occurs, that is, if x murders so-and-so, a certain degree of unpleasantness will occur within the contexture. (The judgment is here made that the stimuli producing in x some pleasantness—for instance, the satisfaction of fulfilling his desire to murder so-and-so—would be overwhelmingly outweighed by those producing unpleasantness—for instance, the sight of the blood, the piteous cries of the victim, any hurt x might receive in the struggle, his socially conditioned sense of revulsion, and the like—so that the probable net result in terminal value would be distinctly negative. As was suggested, our example is confined to a consideration of the terminal values involved, in order that undue prolixity may be avoided. Actually, however, the potential *instrumental* values are those which most support the *ought* in situations of this character: the acute and lasting unpleasantness occasioned by murder as a *means*—to uneasiness, ruth, fear, distrust, the necessity of perpetual

concealment, the vengeance of society, the pains of confinement, public obloquy and disgrace, family ruin, and finally to the anticipation of death with its obliteration of all future potential values. These we are leaving out of consideration for simplicity's sake; their inclusion would, however, in no wise change the formal conclusions of the present argument.)

(1) Symbolic equivalent: (t) p_3 ($xz \supset U$)

(2) Test (of the proposition that the stimuli accompanying the murder would probably produce in x a surplus of unpleasantness; not of the proposition that such stimuli would occur and be *capable* of affecting x, this having been considered in *b* above): an inference from (a) x's present character (as above); (b) x's past history, with especial reference to his reaction patterns (in loose phraseology, x's scale of values); and (c) the immediate effects which past murders have been observed to have on the perpetrators.

d. It is highly probable that x will be capable of response to the alternate object in question (here the complex situation, "so-and-so not murdered by x, in spite of x's desire to do the deed").

(1) Symbolic equivalent: (t) p_4x

(2) Test: the same as that in *a* above, since in this example the alternate object is a simple contradictory and the time reference is identical.

e. It is highly probable that the alternate object (x refraining from a desire to murder) will be capable of stimulating x in its normal character of an "abstention or forbearance from murder."

(1) Symbolic equivalent: (t) p_5z'

(2) Test: an inference from an indefinitely large sampling of past instances of renunciation of murder in a social milieu similar to the present one.

f. It is probable that, if the x and alternate object stimulus-response contexture occurs, that is, if x refrains from murdering so-and-so, a certain degree of pleasantness (or, possibly, a slight degree of unpleasantness) will occur within the contexture. (The judgment is here made that the stimuli producing in x some unpleasantness—for example, chagrin at not wreaking his forcible vengeance on so-and-so—would be outweighed by those producing pleasantness—for example, the surge of the feeling of relief at not having committed a crime and of thus having escaped the many

awful consequences; so that the probable net result in terminal value would be positive, or at most only mildly negative.)

(1) Symbolic equivalent: (t) $p_s(xz' \supset P)$ or possibly (t) $p_s(xz' \supset U')$.

(2) Test (of the proposition that the stimuli accompanying the non-murder would probably produce in x a surplus of pleasantness or mild unpleasantness; not of the proposition that such stimuli would occur and be *capable* of affecting x, this having been considered in *e* above); an inference from (a) x's present character (as above); (b) x's past history, with especial reference to his reaction patterns (in loose phraseology, x's "scale of values"); and (c) the immediate effects which past instances of overcoming the impulse to murder have been observed (or can be inferred by analogy with other resembling occurrences) to have had upon the individuals so impelled.

g. It is necessary either that so-and-so should be murdered by x or that he should not.

(1) Symbolic equivalent: (t) $xz \vee xz'$

(2) Test: a deduction from the meaning of the word *murder.*

h. So-and-so cannot both be murdered and not murdered by x.

(1) Symbolic equivalent: $(t) \sim (xz \cdot xz')$

(2) Test: a deduction from the meaning of the word *murder.*

i. The probability of x murdering so-and-so (or, the probability of the x and object stimulus-response contexture occurring) is greater than a certain constant. In the present state of scientific achievement it is not yet possible to express this constant in a simple mathematical form. Let us roughly define it, however, by the postulation that, the degree of probability of the occurrence of this event is greater than that degree which would cause it to be neglected with assurance in the practical plans of, in the legal phrase, "a reasonably prudent man," and hence such that this hypothetical individual would be led to regard the situation containing this and the incompatible alternative as genuinely "problematic." If this condition were not fulfilled, it would be a mere waste of breath to tell x that he *ought not* to do something which either he had not the slightest real intention or possibility of doing or on the other hand that there was not the least real probability that he could refrain from doing, as in the case of a man under the influence, say, of *Cannabis indica.*

It will be seen that for all practical purposes—and the purpose of the constant, k, is practical—k must be less than 1/2. A "reasonably prudent man" could not afford to neglect an alternative in a problematical situation in which the probability was over 1/2, that is, in which that alternative would be more likely to occur than not. In fact, for such an individual and in the majority of situations, alternatives become worthy of account when their probability is very much less than 1/2. For example, the chance that a particular individual will decease in the ensuing year may be, say, .02 (one in fifty); yet if he is circumspect, he will consider that alternative sufficiently probable to justify his being at the expense of a life insurance premium. If the reader will consider a number of such instances, he will undoubtedly agree that the probability constant, k, implied in *ought* situations is considerably below 1/2.

It is important to notice that one of the factors which must be considered in estimating the feasibility of either alternative is that of advice or admonition conveyed to x and constituting an additional stimulus. That is, telling x that he ought or ought not to do something—especially if accompanied by the emotive signs of social approval or disapproval, as previously discussed—will usually be one of the chief factors affecting the probability of the occurrence of the act or object. Sensitivity to such stimuli is one of the main ingredients in social responsibility (ability to respond). Thus the meaning of the term *feasible* in our definition of *ought* is seen in an additional light: alternatives are feasible if the probability of the occurrence of either is greater than a certain constant—intimately related to the social milieu—as the alternatives are determined by stimuli sets, *included in which are the important stimuli of an expressed ought or ought not.* That an expressed *ought* is itself a factor tending to bring about the occurrence with which it is concerned is what constitutes the practical importance of moral judgments. This is the case even with self-expressed *oughts,* as if in this example x should stimulate himself by the implicit speech behavior, "I ought not to murder so-and-so." If or when the alternatives cannot be influenced by an expressed *ought,* the concept loses all its practical importance. This is exemplified by the difference between "you ought not to murder so-and-so" and "you ought to have a face like the Hermes of Praxiteles." In either case it is

asserted that the one alternative would procure more pleasantness for the one addressed than the implied other alternative, but only in the former instance is the actualization feasible. Hence the essential futility of all propositions of the type, "This sorry scheme of things ought to have been ordered other than it is," except in so far as the expression of such an *ought* can in concrete instances help to make it "other than it is" in the future.

We are now in a position to see, in a new light, the shallowness of such arguments against psychological hedonism as that, if all actions are determined by the sole object of pleasure, it is futile to tell a man that he *ought* to seek anything else. For one thing this argument, as we have seen, exhibits in the most obvious way the fatal confusion between end and last means. Because hedonism holds pleasantness to be the sole end, that in nowise implies the impossibility of advising a man as to a choice of last means to the attainment of that end (or of intermediate means to the attainment of those last means). But aside from this confusion, the argument overlooks the fact we have just been discussing—that the very telling a man he *ought* to seek some particular object, especially when supported by reasons, is itself a stimulus determining conduct. The *modus operandi* is roughly this: an *ought* proposition points out the last means to the greater pleasantness in a particular situation (or the intermediate means necessary and sufficient to achieve the last means already recognized as leading to the greater value); in the normal operation of an organism's mechanism the greater prospective pleasantness will occasion the greater present pleasantness; present felt pleasantness in future alternatives is what determines choice; thus the force of an expressed *ought* lies precisely in its being a determining factor toward the positive or negative affectivities felt by the advisee. The force of "you ought not to murder so-and-so" is to add an additional stimulus or stimuli to x's feeling present unpleasantness in the prospect and present pleasantness in its opposite. "You ought to go to the symphony" helps to make the concert seem pleasant in anticipation and any other course of conduct unpleasant by comparison.

If, however, a particular individual is not only irrevocably determined to seek pleasantness (which hedonism declares to be the observed nature of all organisms, indeed of the life-process as such)

but also irrevocably determined to seek some particular last means to pleasantness, for example, the murder of so-and-so—that is to say, some particular last means appearing more pleasant than any possible alternative with which it could be compared—then indeed in that case an *ought* would be futile practically. If such an individual's *idée fixe* constituted a vital *ought not* from the point of view of society, there would thus be created one of those conflicts of values which, as we have seen, would needs be resolved one way or the other by the operation of physical force. As animals cannot in general be influenced by the expression of *oughts,* they must be allowed to seek their values in their own instinctive or trial and error ways, or in the case of important value conflicts with humans or with other animals, the application of force must necessarily be the means by which a resolution is made to follow.*

(1) Symbolic equivalent (of proposition *i,* above): (t) $p_t xz > k$

(2) Test: an inference from (a) x's present character (determined if necessary, as above, by mental and physical examinations, that is, observations of different but closely related sets of reactions to directed stimuli); (b) x's past history (this may, in a sense, be considered another way of determining x's character); (c) x's present behavior, including verbal, as indicating his probable course of conduct; (d) the present state of affairs in the relevant environment—including of course one or more admonitions—in so far as it is likely to hinder, permit, or promote the alternative of the murder; and (e) the habits, character, physical strength, plans, present circumstances of so-and-so, in so far as they would influence the probability of either alternative. (With regard to the conditions discovered by this last test, suppose it turned out that as a matter of fact, but unknown to x, Mr. So-and-So had died of natural causes this morning. Then that fact alone destroys the genuineness of one alternative and hence removes from the proposition, "x ought not to murder Mr. So-and-So tonight," its truth-falsity potentiality. At the most only some weaker substitute could remain subject to the ascription of truth or falsity, such as, "x ought not to set out for Mr. So-and-So's house tonight with the intention of murder.")

* The technical material from this point to the last paragraph on the following page may be skipped by the non-technical reader.

j. The probability of x not murdering so-and-so (or, the probability of the x and alternate object stimulus-response contexture occurring) is greater than a certain constant.

(1) Symbolic equivalent: (t) $p_8xz'>k$

(2) Test: as in *i* (1) above.

(3) Since the alternatives in the present example are mutually exclusive and exhaustive, it of course follows that $p_7 + p_8 = 1$, or that the probability of the actual occurrence of either is equal to 1 minus the probability of the other. If either alternative had a probability of *less* than k (which we might call "the constant of practicability"), k being as we have seen less than 1/2, it would follow that the other must be *greater* than k. But if the one is *greater* than k, it does not necessarily follow that the other is *less* than k. Hence the need for two propositions, asserting the fact that both alternatives *are* greater.

k. The potential terminal value associated with x not murdering so-and-so (*d* to *f* above) is greater than the potential terminal value associated with x murdering so-and-so (*a* to *c* above). ("Greater than" here has its usual meaning in our axiological system of, "lying in the hedonic scale nearer to the positive end.")

(1) Symbolic equivalent: (t) $p_4p_5p_6P>p_1p_2p_3U$, or possibly (t) $p_4p_5p_6U'>p_1p_2p_3U$.

(2) Test: a direct comparison of the two potential values, either as symbolically experienced or as expressed in numerical or quasi-numerical form.

With this final proposition the full meaning of the assertion of this particular *ought* has been revealed (within the limitations of the simplifying conditions we mentioned: for instance, dispensing with an analysis of the instrumental values which would be implied in such an assertion). If x murders so-and-so, he will attain to less terminal value (pleasantness) than if he does not. The assumption is obviously made—and this of course is again the basic postulate of hedonism—that x *does* seek the greater value, as it appears to him, in every instance. An *ought* admonition simply points out the *means* to value in any particular instance. If, however, x were an exceptional organism and were not interested in the "end" of greater pleasantness, then of course it would be meaningless to advise him that he *ought* not to murder so-and-so, on the grounds that that

alternative would probably procure him the higher value (greater pleasantness). But also, since society is affectively interested in the outcome of his choice, it would be necessary in that case to employ force; x would be locked up as a madman, that is, a human organism whose conduct is determined by motives (stimuli) notably different from those of the type. It would be said of him that he was constitutionally unable to distinguish between right and wrong, that is, he would not be attracted by those things in which society finds pleasantness nor repelled by those things in which society finds unpleasantness. A community of values is a necessary condition to the existence and continuation of the social structure.

The foregoing remarks must not lead the reader to suppose that in the explication of x's *ought* all the ethical possibilities in the situation have been exhausted. Just as every value is a value *for* some organism or other, so *ought,* being based on a complex of values, is *for* some organism. It would therefore be quite in order to estimate value potentialities of the same alternatives from the point of view of, say, the social organism. The result might be expressed in a proposition such as, "from the point of view of society, x ought not to murder so-and-so." (Or perhaps x *ought,* if so-and-so were a menace to society's welfare whom it were impossible to remove otherwise; for murder is not to be stigmatized with an indefeasible *ought not*—witness Harmodius and Aristogeiton.) This, however, would be a not altogether clear mode of expression. For society's point of view is nothing to x unless it is taken up and becomes his own point of view, and then we are reduced once more to the original proposition that, "x ought not to murder so-and-so, *for his own sake.*" A clearer expression would therefore be, "society ought not to allow x to murder so-and-so tonight," that is, there exist two feasible alternatives and the one "has" *for society* greater potential value than the other. This proposition could be shown to be supported by objective evidence in a manner exactly similar to that in paragraphs *a* to *k* above. If the circumstances were such that society could do nothing to promote or forestall either alternative, then the situation could contain no social *ought.* The expression of one would be as senseless as, "society ought not to tolerate the Moon's occultation of Mars as predicted for tonight." In such case also there would, of course, be no *conflict* of *oughts;*

for conflicts, of the kinds we have previously discussed, can occur only when the mutually exclusive alternatives are feasible to two or more organisms.

From the nature of the component propositions exhibited in this example of an *ought* and the roughly indicated tests establishing their truth or falsity, it is evident that each proposition is quite as verifiable as the current and ordinary ones in the acknowledged sciences. There is, for example, no difference in principle, and not an insurmountable difference in complexity, between "x ought not to murder so-and-so tonight" and "x has an I.Q. of 75 and is not likely to pass the University of London Matriculation Examination if he attempts it," or "if the *Lusiad* of Camoëns be read in the original Portuguese at a Bantu tribal assembly, the majority of those present is not likely to enjoy the beauties of the epic," or "a reenactment at the present time of the Smoot-Hawley tariff would probably have consequences even more disastrous to the world's economic welfare than those following upon its original enactment in 1930." No one, doubtless, would deny that the latter three propositions are subject to verification; equally so is the first—the proposition latterly under discussion. A carrying out of the roughly indicated testing procedures, whether done with laboratory precision or only "intuitively," must have one of four outcomes: the statement, "x ought not to murder so-and-so tonight," will be (1) affirmed, (2) denied, (3) declared meaningless, or (4) held doubtful in the light of the available evidence. It may be denied in two ways: (a) by showing that upon the evidence x *ought* to carry through the murder, or (b) by showing that for all practical purposes it is a matter of *indifference*. The statement will be rendered meaningless if the evidence indicates that any of the component conditions are impossible or extremely unlikely of actualization: as above, if so-and-so has as a matter of fact died already, it is then meaningless to say he ought not to be murdered; or again as before, "you ought to jump to the top of Mt. Vesuvius" is meaningless because, though not strictly impossible, its feasibility is so extremely small that it renders the affirmative injunction a mere waste of breath or but an idle jest—meaningless at any rate from a practical standpoint (and ethics is a science dealing with practical means to practical ends). The *ought* proposition will, fourthly, be held doubtful if the data

from which the necessary future inferences are to be drawn are so conflicting or so scanty that no conclusion one way or the other is supported with a preponderance of evidence. Of this indecisive character are, for instance, the following propositions: "the Sirens ought to have chosen a sweeter song at the time of Odysseus' passage"; "McClellan ought to have renewed the assault on the Confederate position on the second morning of Antietam"; "of the several curves of the catenary, conchoid, ankh, anchor, ogee, or oenochoë, the latter ought to be most admired in the twenty-first century." But in reality *ought* propositions of the doubtful class are least in need of exemplification, since in daily life it is by far the most numerous class.

The reader will see that the core of the typical *ought* situation is expressed in the latter portions of the first and second, and in the fifth of the component propositions, for these are the only portions which make reference to affectivity and hence to value. The others are, so to speak, preliminary; they set the conditions for the existence of an *ought,* but without those specified there could be none, for it is the probability that x will be *affected* by either alternative in the problematic situation which converts the compound proposition concerning the occurrence from a matter of mere physical fact into one of axiological fact. If it were probable that x would feel affectivity in neither alternative—if the occurrence or nonoccurrence of the event were to leave him completely unaffected—then there could be for him no *ought.*

But to continue with the matter of the objective verifiability of *ought* propositions and hence their amenability to scientific treatment, it has, I think, been demonstrated in some detail that the component parts of a private human *ought* are all open to operational verification—theoretically as much so as any proposition having a future reference. (And it may be noted that *all* propositions whatever must be verified in a relative future.) It has been suggested that an exactly similar procedure could be applied to a societal *ought.* We shall not presume upon the reader's patience by repeating the foregoing analysis with respect to propositions such as, "society ought not as a general rule to tolerate murders," or "this nation ought to bring an enduring peace to the world by means of a forcibly imposed *Pax Americana,*" or "mankind ought

to adopt as a universal rule of conduct the principle of complete freedom of speech." These propositions are theoretically no less open to objective verification than the particular one we have used as an illustration. Admittedly the relevant evidence and the consequent analysis would be immensely more complex. In practice this is the chief hindrance to a scientific ethics, but it is a pragmatical problem which is not by nature insoluble, nor closed to solution at least on a level of common usefulness.

But as has been insisted upon throughout, the present doctrines purport to be applicable with no basic differences to the whole organic world (or to the whole world, if it be considered organic), and it may not be clear in what manner this analysis would be relevant to an *ought* situation other than human. Let us then, at the risk of some prolixity, take an example of a non-human *ought* and run through as briefly as is advisable the component propositions which are involved to assure ourselves that the same symbolic and verbal analysis is applicable and that such *oughts* too are open to objective verification. For the sake of concision the verificatory data will be merely hinted at, amplification being left to the reader's imagination.

That we may be assured of dealing with a situation in which all the components necessary to the existence of an *ought* are actually present, let us suppose the following: a cat is, for the first time, in a standard psychological laboratory maze; it is being actuated by a hunger drive, that is, the feline organism is in such a physiological state that the stimulus with which is most and most persistently associated unpleasantness is that complex of visceral sensitivities denoted by the term "pangs of hunger"; the cat is at a crucial point in the maze—if it takes the left alley it will obtain a piece of savory meat, if it takes the right it will obtain no food but instead be soused by a shower of cold water. The proposition is asserted, "With reference to the immediate future, this cat ought to choose the left alleyway." What is the meaning of "ought" in this proposition? To what extent is the proposition verifiable?

Before commencing the analysis along the lines indicated in the preceding example we must take note of several peculiarities in the assumed situation. The first is that the choosing of either alley-

way is not in itself associated with any value; it is a matter of perfect indifference to the cat whether it walks to the left or to the right —so far as the mere walking is concerned. How then, since we have postulated that an *ought* is an assertion of greater value in one alternative than in another, can we say that the cat *ought* to go left rather than right? We cannot unless we take into account the potential value attaching to the meat-eating and the water-sousing, respectively. But what have these to do with the right and left alleyways? Simply that these latter are the sufficient and necessary conditions to the attainment of the former.

Thus once more language deceives us. We do not mean literally, "The cat ought to take the left fork"; what we really mean is, "The cat ought to choose left-fork-leading-to-meat-eating and not right-fork-leading-to-water-sousing." That is, our *ought* here predicts the occurrence of value not in a simple situation or object but in a complex one. In general, if r "has" potential terminal value for x, and if q is a sufficient, necessary, or both sufficient and necessary condition for the occurrence of r, then the complex object or situation, qr, "has" potential terminal value for x. (This in nowise rules out the possibility that q may also have other consequences—one of which, say, is s—so that the complex object qs may "have" for x potential terminal value of a different sort or degree or both than qr. In such event we could not safely assert that x ought or ought not to choose q without an estimated summation of the potential values of its compounds. This, of course, is very common in practical affairs, where almost any object, situation, or course of action has numerous consequences and hence where the choosing of it is followed by the actualization of a number of complex stimulus-response contextures which include affectivity. In the present example, however, it is assumed that the taking of the left or the right forks have respectively no other affective consequences than those associated with meat-eating or water-sousing.)

It might be wondered, however, whether we should thus speak of potential *terminal* value manifested in complex contextures or whether we should not keep the factors separate and say that the consequent "has" potential *terminal* value and the antecedent potential *instrumental* value. The latter mode of expression would not ordinarily be correct. This may be confirmed by reference to

the definition of *instrumental value*. An object "has" instrumental value only in so far as an organism reacts affectively to it as being the intermediate means to a last means "having" terminal value. Now in our present example we are supposing that the cat has not previously been confronted with the maze situation. It can, therefore, have no preview, forethought, intuition, affective anticipation—in a word, conditioning—as to the last means associated (by the ingenuity of the experimenter) with the left and right alternative alleys. Since, then, the bare act of entering upon either path will have no observable affective consequences, it cannot be said to "have" value and hence there could be no basis for a valid affirmation of an *ought*. But we do feel (and rightly) that it is both meaningful and true to assert, "this cat ought to take the left fork." Such a proposition, then, must be based on the potential *terminal* value probably to be actualized in the complex stimulus-response contexture, "cat plus left-fork-leading-to-meat-eating."

Under other circumstances, it is true, the foregoing proposition might be based validly on the existence of potential *instrumental* value in the choosing of the left fork. Immediately upon eating the meat, the precedent choice might come to be associated with pleasantness (by reflexion, so to speak), so that it could be said then to "have" *indirect* (as recalled) *instrumental* value. (The evidence for this would be seen in the cat's tendency upon a second trial to *choose* the left alleyway, that is, to have its reaction determined, not by some random and extraneous stimuli, but by those specific stimuli associated with the former meat-finding-at-the-end-of-the-left-alley.) Again, if we suppose the cat to have been subjected to this same maze-structure many times, an *ought* as to the left fork might validly be based on the potential *instrumental* value which by then would be strongly experienced by the cat immediately upon entering either alternative path. That is, we could remove both the meat and the cold water and still validly assert, "the cat ought to choose the left fork"—simply because *if* the cat chose the left fork it would probably experience pleasantness due to the past associations of that alley with meat, whereas *if* it went right it would equiprobably experience unpleasantness due to the past associations of that alley with cold water. We should then have a value situation essentially similar to our exhaustively treated example

of instrumental value associated with the possession of a concert ticket.

But as those circumstances are not these we are at present assuming, we are thrown back upon exhibiting the potential *terminal* value associated with the complex objects, left-fork-leading-to-meat-eating and right-fork-leading-to-water-sousing. This being so, it at once becomes apparent that the validity of our assertion of *ought* depends upon two extra probability factors (extra with respect to those we have enumerated in the example of the contemplated murder)—namely, the probabilities that the taking of the left fork *will* lead to meat and the taking of the right to cold water. It is evident that if there is any substantial doubt upon these points (say by reason of the unreliability of our experimental apparatus), it must correspondingly weaken the force of any dependent assertion of value; if it is no more likely than not that either the meat or the water will be materialized through the choice of either path, then any assertion of *ought* becomes idle. We shall therefore in the ensuing analysis have to take into account these two additional factors, giving then a total of thirteen which form the bases of a value judgment in this situation. The additional factors are, however, merely complications due to the arbitrary nature of our example and do not in the least affect the theoretical foundations of the matter at issue. It is to be noted also that they most certainly pertain to "matters of fact." *

As before, let us set down an approximate symbolical representation of the component propositions inherent in an assertion of *ought* in this assumed situation:

1. (t) $p_1x \cdot p_2z \cdot p_3(y \supset xz) \cdot p_4(xz \supset P)$. Evidently the latter two expressions are jointly equivalent to (t) $p_3p_4(y \supset P)$.

2. (t) $p_5x \cdot p_6z' \cdot p_7(y' \supset xz') \cdot p_8(xz' \supset U)$. Similarly, the latter are jointly equivalent to (t) $p_7p_8\,(y' \supset U)$.

3. (t) $y \vee y' \cdot \infty(y \cdot y')$.

4. (t) $p_9xz > k \cdot p_{10}xz' > k$. (Of course, $p_9xz = p_3$ times the probability of y, and $p_{10}xz' = p_7$ times the probability of y'.)

5. (t) $p_1p_2p_3p_4P > p_5p_6p_7p_8U$.

We proceed, also as before, to express in words the approximate

* The technical material from this point to the second paragraph on p. 197 may be skipped by the non-technical reader.

signification of each of the components of these propositions:

Referring to the immediate future—

1. It is highly probable that x (the hungry cat) will be capable of response to one of the alternative objects in question (here the complex situation, left-fork-leading-to-meat-eating).

(a) Symbolic equivalent: (t) p_1x.

(b) Test: an inference from the feline character and the observed external circumstances of the case.

2. It is highly probable that the object (left-fork-leading-to-meat-eating) will be capable of stimulating x in the normal manner, that is, in the manner in which similar instances of acquisitions of raw meat have been observed in the past to stimulate hungry cats, or this cat in particular.

(a) Symbolic equivalent: (t) p_2z

(b) Test: an inference from an indefinitely large sampling of past instances of raw meat affecting hungry cats, together with instances of the constancy of retention by raw meat of its stimulating characteristics over short periods of time. (We do not have to set out and *make* such inquiries in order to pass judgment in problematical situations of this sort; the inferences are ready to hand as a result of our accumulated lifetime experience with cats and meat and their characteristics.)

3. It is probable in a certain degree that if the cat takes the left fork (y), there will immediately afterwards occur the stimulus-response contexture, cat-eating-meat (xz).

(a) Symbolic equivalent: (t) $p_3(y \supset xz)$

(b) Test: an inference from the construction and past observed operation of the maze, that is to say, that it may be relied upon that if a cat proceeds to the left at a certain point, it will find itself at once in the presence of accessible meat.

4. It is probable in a certain degree that if the x and object stimulus-response contexture occurs, that if the cat eats the meat, a certain degree of pleasantness will occur within the contexture as a consequence.

(a) Symbolic equivalent: (t) $p_4(xz \supset P)$

(b) Test: an inference from the past observed behavior of hungry cats in the act of eating raw meat. (As has been previously intimated, the warrant for postulating the presence of positive affec-

tivity within the stimulus-response contexture is derived from analogies with the observer's personal experience and with the symbolically reported experience of other humans.)

(c) This proposition and the preceding one (3) are together equivalent to—there is a certain compound probability that if x takes the left fork, x will experience pleasantness—(t) $p_3p_4(y \supset P)$.

5. It is highly probable that x will be capable of response to the other of the alternative objects in question (here the complex situation, right-fork-leading-to-water-sousing).

(a) Symbolic equivalent: (t) p_5x

(b) Test: similar to that in 1 above, but not in this example identical, since the alternative object is not a simple contradictory; that is, in our former example the alternatives were "murdering so and so or not murdering so and so," while here they are, not "eating meat or not eating meat," but "eating meat or being soused by cold water."

6. It is highly probable that the object (right-fork-leading-to-water-sousing) will be capable of stimulating x in the normal manner, that is to say in the manner in which similar applications of cold water have in the past been observed to stimulate cats, or this cat in particular.

(a) Symbolic equivalent: (t) p_6z'

(b) Test: an inference from an indefinitely large sampling of past instances of cold water affecting cats, together with instances of the constancy of retention by small quantities of cold water of their stimulating characteristics over limited periods of time.

7. It is probable in a certain degree that if the cat takes the right fork (y'), there will immediately afterwards occur the stimulus-response contexture, cat-being-soused-by-cold-water (xz'). As in 3, above, the probability here in question must not be confused with the probability that the cat *will* or *will not* take the right fork in the maze. As we have specifically seen in our discussion of potential value, this assertoric, as opposed to hypothetical, probability is no part of the intended meaning of *ought*. It is logically a quite separate proposition: we might with complete consistency assert both that the cat *ought* to take the left fork but that it probably *will* take the right. This vital distinction should by now be clear.)

(a) Symbolic equivalent: (t) $p_7(y' \supset xz')$

(b) Test: an inference from the construction and past observed operation of the maze, that is to say, it may be relied upon that if the cat proceeds to the right at a certain point, it will at once be subjected to a wetting with cold water.

8. It is probable in a certain degree that if the x and alternative object stimulus-response contexture occurs, that is, if the cat is showered with cold water, a certain degree of unpleasantness will occur within the contexture as a consequence.

(a) Symbolic equivalent: (t) $p_s(xz' \supset U)$

(b) Test: an inference from the past observed behavior of cats when stimulated by the sudden application of cold water to the epidermis. (That unpleasantness is likely to occur under such conditions is, again, an inference based on analogies between the observed behavior of cats and personal and fellow-human behavior under similar conditions.)

9. It is necessary either that the cat take the left alley or that the cat take the right alley.

(a) Symbolic equivalent: (t) yVy'

(b) Test: an inference from the construction of the maze (that, for instance, no third alley is available) and from the nature of this cat as an example of its species (that it cannot, for instance, satisfy its hunger drive by gnawing the maze floor).

(c) Obviously in the particular example we have chosen there is a third alternative possible, however improbable, namely, that the cat would take neither alternative path, but simply squat upon its haunches and go no further. Thus here, as in the great majority of *ought* situations as they occur in the ordinary course of living, there are not merely two contradictory alternatives open but three or more contrary alternatives, often to an indefinite number. This fact, however, does not alter the nature of the *ought* proposition as we have here analyzed it; simply there are complicating factors added which can here be neglected without any significant distortion. Thus in the present instance the improbable possibility that the cat might sit down only adds a further proposition to the effect that if it does so, a certain degree of unpleasantness would result (namely, that accompanying the continuation of unsatisfied hunger). The final *ought* would in the end more precisely signify, "of the *three* alternatives available to the cat, that of proceeding along

the left alleyway 'has' the highest degree of potential value." The reader will no doubt grant that this analysis already has enough of complexity without the addition of further unnecessary and improbable minutiae; but be it so, it still is important to realize that a full axiological analysis of most problematic situations in actual living would needs take into account a good many more than two alternatives. Needless to say, in the usual making of axiological decisions in daily life we do not and cannot pause for a full analysis of the alternatives; we run through them, or those that instinctively seem of most importance, by that marvelous shorthand implicit behavior which is thinking or, more specifically, "practical experience," in a minute fraction of the time it would take to describe the weighing in spoken or written words. This process of decision or choice is generally sufficient for the ordinary purposes of daily conduct. And it will be sufficient even for our present philosophical purpose if we proceed on the abbreviated basis of the two most likely alternatives in this example and neglect the gratuitous complication attendant upon the third and unlikely one.

10. The cat cannot both take the left alley and the right alley at the same time.

(a) Symbolic equivalent: (t) $\circ\!\!-$ (y · y′)

(b) Test: an inference from the construction of the maze (e.g., that the separating wall cannot be pushed down to allow an animal to pass along both alleys at once) and from the nature of this cat as an example of its species (e.g., that it is not likely to divide itself into two demi-cats and proceed in both directions simultaneously).

11. The probability of the cat taking the left alley is greater than a certain constant. (As we have seen, unless the alternative in question has a probability of *actually occurring* greater than a certain "constant of practicality," it is idle and, from any practical standpoint, meaningless to assert it in an *ought* proposition. The cat *ought* to take the left alley if there is some slight probability that he *will* take it. It would be nonsensical to assert, "The cat *ought* to jump out the laboratory window and cease submitting to be experimented upon," if the maze is so constructed that there is not the slightest real possibility of the cat's escaping from it. In the present example, with its restricted and simple alternatives, this is no doubt sufficiently clear, but the validity of *oughts* is not nearly

so clear in many of the most important problems of life. For example, do we or do we not imply a practicable alternative if we assert, "Mankind ought to give over credence in and allegiance to institutionalized systems of superstitition masquerading as religion"? The probability that the mass of men at any foreseeable time in the future would be able, or even concerned, to free themselves from those stultifying farragoes of primitive belief, dogma, and ritual, which perhaps more than any other external factors maintain the popular mind in a state of infantilism, seems so miniscule that the assertion of such an *ought* appears to have little more status than an idle wish. Yet the expression of such an *ought* might well serve as an inspiration to a long-term program directed to the spiritual liberation of mankind. In such cases, then, the question may perhaps be considered an open one.)

(a) Symbolical equivalent: (t) $p_s xz > k$

(b) Test: an inference from those propositions, themselves derived from past observation, which define the nature of the cat and the nature of the maze situation, the result of the inference being a judgment asserting or denying that the alternative act in question has or has not such a probability that it may reasonably be regarded as likely to occur. As before intimated, much more labor of analysis would be required to make this confirmatory procedure unexceptionable, but none the less we clearly understand (for practical purposes) its general nature. No sensible individual hesitates between alternatives such as, "Shall I go out and earn my living or shall I dig in my backyard in the hope of striking oil?," or "Ought I to marry this attractive young man or ought I to wait for a proposal from the Crown Prince of Barataria?" Experience permits us the inference that such alternatives are so improbable as to be unworthy of practical consideration; that is, the probability of their occurrence is below a certain more or less definite "constant of practicability." On the other hand, a person to whom such improbable alternatives *are* factors requiring deliberation or lucubration prior to purposive action is *ipso facto* regarded as psychopathic. The relative constancy and determinability of these facts is one of the traits in human affairs which makes *ought* propositions accessible to objective scientific treatment and hence establishes the possibility of a "science of ethics."

12. The probability of the cat taking the right alley is greater than a certain constant.

(a) Symbolic equivalent: (t) $p_{10}xz' > k$

(b) Test: as in paragraph 11 above.

(c) If it were thought necessary to consider the third alternative mentioned—of the cat taking neither alleyway, but instead resting on its haunches—it would no doubt be rejected at this stage of the argument. For the probability of a hungry cat, stimulated by the fragrance of raw meat, refusing to explore an open avenue inviting to gustatory satisfaction is so extremely improbable that it would undoubtedly be thought to lie below the "constant of practicability" and hence no part of an *ought* proposition generated by the existent situation.

13. The potential terminal value associated with cat-taking-left-fork-leading-to-meat-eating is greater than the potential terminal value associated with cat-taking-right-fork-leading-to-water-sousing.

(a) Symbolic equivalent: (t) $p_1p_2p_3p_4P > p_5p_6p_7p_8P'$

(b) Test: a direct comparison—by juxtaposition, so to speak—of the two potential values. In this particular instance the probability factors may be taken as approximately equal on either side and as we have in the case of the meat-eating inferentially a high degree of pleasantness (P) and in the case of the water-sousing a low degree of pleasantness (P′—or more accurately a considerable degree of unpleasantness, U), we can have no hesitation in judging the former potential value to be greater. In making the actual comparison, in this as in other cases, it is possible that we carry out a process of vicarious behavior: we *feel* empathically the cat's pleasantness in the food and unpleasantness under the cold water. If this be so, we have reached the limit of our analysis in this direction, for there is no possibility of going "beyond" the immediately felt data of two or more affectivities. Such data are, in the epistemology here assumed, the ultimate, irreducible data of experience. If of two simultaneously occurring affectivities (within the specious present) one is clearly felt as the pleasanter, then it *is* the pleasanter. To push a niggling skepticism beyond this point is to subvert even the possibility of useful knowledge. A possible doubt that the cat *ought* to turn to the left must be lodged, not against the judgment that P is in itself greater than P′ (or U), but against the judgment that

one or more of the probability factors are as they are alleged to be—including the probability that the cat would feel P or U in a degree analogous to our own feeling. These are objective inferences based on observed matters of fact, and both the inferences and the facts from which they are drawn may be questioned, modified, added to, diminished, and so on.

In summary, then, once the potential values of the case are accepted, the judgment that one value is sensibly greater than the other is the expression of an immediate datum of experience; if it is seen fit to doubt that the cat *ought* to take the left fork, such doubt must relate to the probability of the cat preserving his felinity into the near future, the probability of meat or water stimulating the cat in a manner similar to past instances, the probabilities (based on the faulty operation of the maze apparatus, perhaps) of the left and right forks issuing in the anticipated sequents, or to the probabilities (based on past experience) that the cat *will* feel P or P′ (or U) respectively in reaction with the meat or the water.

But now, as in the former example of the contemplated murder, the preceding set of propositions having been explicated, the full meaning of this particular *ought* has been revealed. As with every organism, the end of all the cat's aroused response patterns is the attainment of personal pleasantness and the avoidance of personal unpleasantness. If the cat proceeds to the left, it is probable that he will avoid unpleasantness (continued hunger) and attain to pleasantness (the positive affectivity associated with eating meat). If he proceeds to the right, the reverse of all this. The cat, therefore, *ought* in the existent maze situation to take the left fork.

It should hardly be necessary at this stage of the argument to call the attention of the reader once more to the fact that it may equally well be judged that the cat *ought not* to take the left fork. But if this latter judgment is made, it must be from the point of view of some other organism, or possibly from the cat's point of view but with a more distant time reference. Perhaps I personally will lose a wager if the cat turns left; speaking from my own viewpoint, I say the cat *ought not* to. Or perhaps the "meat" is a live mouse; from that rodent's point of view, the cat ought very much to take the *right* fork. (Strictly speaking there could, as we have seen, be no genuine admonitory *ought* in either of these cases unless I or

the mouse had some control over events. For a frenzied partisan at a horse race to shout, "Dusty Legs *ought* to win! I'm absolutely ruined if he doesn't . . . !" is merely a species of sporting hyperbole.) Or perhaps the raw meat, though delicious tasting to cat-kind, is in fact poisoned; confined to a short-term reference, the cat ought to turn left and enjoy it; extended to a longer time reference, he ought to turn right, suffer a drenching, and live happily thereafter. But all this should by now be beyond the possibility of significant ambiguity—so often and unfortunately exhibited historically in contradictory value judgments of more moment. *From the point of view of the organism* and *in a specified time reference* the principle of contradiction applies: it cannot both be the case that x *ought* and *ought not* to act in a certain manner.

At this juncture let us endeavor to illumine the argument in still another perspective by asking, and answering, a fourfold question which in its implications is of the most far-reaching character and the answer to which must in some important respects be decisive in marking out the locus and nature of the methodology adopted and the ontology assumed as a basis for this whole inquiry. Let us suppose a *robot,* constructed with such ingenuity that it responds to certain types of stimuli in a manner closely similar to a natural type-organism of some particular evolutionary degree. (Say that like an amoeba it basks in the sun, seeks plankton food, flees from acetic acid or other irritants, and so on through the catalog of amoebic behavior. Or, since our late value propositions have dealt severally with human and feline exemplars, say our robot responds to appropriate stimuli precisely as does a man or a cat, respectively.)

Query:

1. Would this robot be an *organism?*
2. Would this robot "feel" *affectivity?*
3. Would this robot "experience" *values?*—would values occur in the relational contextures actualized by the robot's responses to environmental stimuli?
4. Would the derivative axiological categories be applicable to this robot? For example, could it meaningfully be said that it *ought* or *ought not* to do such and such? Could its actions be adjudged

right or *wrong?* Could certain objects properly be called *beautiful* for this robot?

Answer: to all four parts of the question, unequivocally *yes.*

(1) If our robot behaves so like a natural organism that its behavior is not significantly distinguishable, then, within the meaning and intent of our definition (page 12), it *is* an organism. Naturally this does not *prove* that robots are or could be organisms; it asserts only that *if* the definition is accepted *then* robots would have the same and as much warrant for being included in the class *organism* as any of the natural species, say *Felis libyca domestica* or *Homo sapiens.* The affirmative answer, therefore, to this first part of the question serves in effect to clarify—by making more explicit its extension—the intended significance of the definition adopted. In plain English, as far as the present system of axiology is concerned if a thing *acts* like an organism, then it *is* an organism. By this simple decision in the use of terms we reject all vitalistic, mystical, supernatural, subjectively anthropomorphic, and the like, differentiae of the concept in question. If this decision has no other merit, it has at least that of methodological (and possibly ontological) simplicity. Needless to say it is a decision strictly in the direction of monism. If the reader is not satisfied that our hypothetical robot would be an organism, he must simply choose or invent another definition of the latter term.

(2) That one feels affectivity is and can be known immediately only to the self-organism, the affectivity being in this instance part of the data of the self-organism's experience; in the case of all other organisms the feeling of affectivity must always, as we have suggested, be a matter of inference. The basis for inferring the occurrence of affectivity in another organism is empathic analogy: we observe that certain of our own behavior complexes are accompanied by felt affectivity; we observe closely similar behavior complexes being exhibited in another organism but with no direct observation of any accompanying affectivity (this simply does not occur); nevertheless we infer the existence of affectivity and in a degree similar to that we have ourselves experienced. But if such an inference is justified, then we could not logically refuse to make it in the case of a robot exhibiting exactly the same kind of behavior. In either case we should have all the warrant which the

natural order provides for inferring extra-egocentric affectivity; as far as affording a basis for such inference is concerned, the observed behavior patterns of the natural and the mechanical organism would be interchangeable. (The distinction, natural and mechanical, would in this case refer only to the origins of the respective organisms and would have no significance, under the suppositions of the original question, with respect to their affective responses, their value experiences, or the validity of applying to each of them the adjective "living.")

The reader, however, may still be disinclined to accept this purely behavioristic view. Let us suppose him to express his dissent in the following, quite understandable, terms: "But no matter how much a robot *acted* like a cat or a human being, still one simply can't believe that it would *feel* anything like what you and I know as pleasure and pain, that it would *care* what was done to it, that it would *be for* or *be against* anything whatever. It is absurd on the face of it to think that a mere hodge-podge of wheels, levers, gears, shafts, cams, dials, photo-electric cells, electronic valves, and what you will, would have any *feelings*, no matter how it might be contrived to behave in the presence of certain stimuli. I feel, you feel, all human beings feel affectivity, and I will grant you on the basis of your former arguments that possibly all the animals feel it too—but that a mechanical robot, however complex and cleverly constructed, should feel affectivity or anything else, a thousand times *no!*"

But this very natural objection to the view under consideration is demolished in a moment by bringing forward the simple counter-question, "Why, reader, do you grant that *I* feel affectivity, that *other* human beings feel affectivity, and that possibly affectivity is felt in the non-human natural organic world?" Since, as we have just seen, the reader cannot directly *experience* my affectivity or that of any third party, he must *infer* it. On what basis? Why, on the basis of how I and other organisms are by him seen to behave. How else? But then if our robot should, as the question assumes, behave in the same manner in the presence of the same stimuli, the non-concurring reader would find himself thereupon involved in an uncomfortable trilemma: either (a) he must arbitrarily (in this case emotionally, for sure) make a distinction without a difference

—a procedure not approved by the best logicians—in holding that some organisms do and some organisms do not experience affectivity though their observable behavior patterns be identical; or (b) he must retreat into an unnatural and sterile sort of axiological solipsism, looking upon all organisms other than himself to be feelingless automata, forsooth because he cannot directly observe in them any feeling; or (c) he must accept our view that if any organism, whether of natural or mechanical ancestry, *behaves exactly as if* it were experiencing affectivity, then nothing is gained and consistency and simplicity are lost by any other inference than that it *is* experiencing affectivity. The first alternative in this trilemma is, of course, inadmissible if we are to accept the canons of rational inquiry. (To the latter some, in the classic manner of Tertullian, may demur; to such persons this work is not addressed.) The second alternative is not logically inadmissible—solipsism in this as in other forms is not subject to logical disproof—but it is utterly useless (and hence, as we shall later have reason to surmise, untrue). The author, for one, simply declines to suppose that the affective data which he perceives immediately are of their kind unique in the whole universe and confined to his private relational contextures. The third alternative therefore remains, and its adoption will, as above in the case of *organism*, serve to clarify the meaning in the present inquiry of the concept *affectivity*.

(3) If now our robot is an organism and if we can validly infer the occurrence of affectivity in its stimulus-response contextures, then it follows at once from our definition (Chapter 2, *ad initium*) that it would experience *value*. And if it should be so marvellously constructed as to behave in significantly analogous ways, then of it could be asserted value judgments in all the twenty-four basic modes. In fact if the reader likes, he may substitute for the man or the cat in any of the given examples a robot of appropriate behavior patterns and there will result no difference whatever in the corresponding value judgments.

If this statement and its implications still seem difficult to accept, it is probably due principally to the fact that any robot thus far constructed or even imaginable, however ingenious in such operations as the solution of mathematical problems, is so lacking in diversified complexity and so completely unresponsive to certain

types of stimuli that we refuse to credit it with any "sensibility," "feeling," "life," "soul," or the like. To construct a mechanical organism of a behavioral complexity comparable to natural organisms would quite possibly require as a basis a structural complexity substantially equivalent to that of the derivative hydrocarbon-compound agglomerations and polyphasic colloids now found in protoplasm. As a practical matter the possibility of constructing so complex a robot is not even on our present scientific horizon, though—as is clearly foreshadowed by the remarkable behavior of existent mechanical devices—there is no theoretical impossibility; but granted even the logical hypothesis of robot behavior not significantly distinguishable from observed natural organic behavior, then there follow the axiological consequences just indicated.

(4) If the occurrence of value in its twenty-four basic modes could properly be asserted of this robot, then also value in its derived forms—including, as has been seen in this chapter, *ought* and including, as will be seen in the remaining two chapters, *right, wrong, good, beauty, economic value, love,* and even *truth.* For, as it is one of the main purposes of this discourse to suggest, these all are particular and applied forms of the basic concept of value.

If the reader now finds, in the light of the foregoing discussion, that he had not fully grasped the implications of the definitions of the terms *organism, affectivity,* and *value* which were set as the foundation stones of this axiological system and of the behavioristic-naturalistic methodology adopted as a mode of inquiry, he might at this point profitably reconsider those definitions and the consequent broader significance of the examples thus far presented. Similarly, in what follows he is invited at any critical point in the discussion to substitute a robot of suitable complexity for whatever organism is under consideration and thus to assure himself by implication of two important principles in particular: (a) that a hedonistic theory of value requires no categories of explanation other than those whose exemplification or non-exemplification in value phenomena can be verified by open, objective, shareable observation, and (b) that therefore under the principle of parsimony all such subjective, anthropomorphic, and inaccessible criteria as soul, life, mind, spirit, consciousness, substantive personality, reified

entelechy, *voluntas, élan vital, Geistigkeit,* and the like, may be dispensed with as supererogatory.

It is now claimed that, as proposed, it has been demonstrated that this axiological analysis is equally as applicable to non-human as to human organisms, and that propositions referring to non-human *ought* situations are no less amenable to objective scientific verification. And if science be considered as an interrelated corpus of objectively verified propositions, then there exists the possibility of a *science of values* applicable to all living organisms, from the lowest virus through man to the world commonwealth, and perchance beyond. The science of human ethics, and under it the science of human morality, would be but a small part of such a universal axiological science. The subject matter of these disciplines would be the manifold *means,* intermediate and last, to the *end* of experienced positive affectivity. They would stand in the closest relation to an expanded psychology, in the broad sense of the science of organic behavior.

More specifically the function of a scientific ethics would be to predict the relative pleasure potentialities of the several feasible alternatives in any problematic situation of consequence—especially recurrent type situations—from the viewpoint of society, the generic human individual, or some other species. Basically and formally, the predictive procedures of ethics as a science would not differ from those of, say, astronomy, with its predictions of eclipses, conjunctions, occultations, precession of the equinoxes, stellar declinations and right ascensions, Cepheid variable periodicity, and the whole array of celestial phenomena. "If, three nights hence at the hour of eight thirty-seven, mean solar time, you will direct your eye toward the eastern rim of the Moon, you will observe the light of Epsilon Geminorum to be quite suddenly extinguished behind its disk; and if, four nights hence, at the same hour, you take a shot over the back fence at your cantankerous neighbor, you will shortly thereafter experience a great deal more unpleasantness than if you restrain your impulse." There is no theoretical difference in the meanings of these two predictive propositions, as types of the logical process of *prediction,* nor in the scientific operations required to verify the probabilities they assert. The chief practical

difference between the two sciences exemplified by these propositions is that even the complex calculations required in the making of astronomical predictions are enormously more simple than those required for demonstrative rational solutions to the problems of ethics. The very complexity of the foregoing analysis of the basic meaning of *ought* indicates as much.

It will be a long time indeed (if ever) before the mass of men can be guided in their actions, in even the weightiest and most public affairs, directly by the precepts of scientific prediction. Far simpler at present and hence far more efficacious for the practical usage of the unlettered multitude is one of mankind's recurrent fables, such as Moses' receipt of the Decalog on Mt. Sinai. When the aim of ethics, in the hands of the lawgiver or social scientist, is the influencing of public behavior, some form of Plato's "noble lie" is, and for a very long time will be, indispensable. The mass of men can no more breathe in the rarified atmosphere of scientific ethics than in that of lunar perturbations, quantum mechanics, or Babylonian epigraphy. Except among doctrinaire democrats, this fact need not appear a derogation of such esoteric sciences. They will still be cultivated by those to whom it is given to understand them. And just as the "common man" is, knowingly or unknowingly, nearly or remotely, influenced in his bemused conception of astronomical and atomic phenomena by lunar perturbations and quantum mechanics and in his equally bemused view of history by Babylonian epigraphy, so in the future might his daily conduct be influenced, through the prevalent and accepted "noble lie," by an empirical science of value. In view of the extent to which the far-reaching discoveries of physical science have altered the whole climate of living, and not least among those who least understand them, there is no reason to expect that a new science, having as its especial subject matter the conduct of living, would have a slighter influence.

The new ethics on its practical side—properly the science of morals or morality—would be concerned fundamentally with the enumeration, classification, and codification of the diverse ways in which, for the organism in question, positive value is to be achieved and negative avoided. This is, indeed, the function, roughly performed and often unavowed, of present morality and

practical ethics, and in large measure it is upon this secondary function that most extant treatises expatiate—treatises ostensibly on ethics—rather than upon the more basic principles, intermediate between morality and axiology, which properly speaking should be the subject matter of ethics. It is largely for this reason that the majority of "ethical" tomes are prolix, tedious in their prolixity, and monumentally unsound.

These ways of achieving positive value, especially the more stable ways, which form the subject matter of a science of morality, are what are often elliptically referred to as the "moral values" or the "ethical values" of life. Such are commonly accounted honesty, decorum, charity, altruism, love of truth, and a host more. Actually, we repeat, these are not values at all but only the more steadfast and reliable (as established by millennia of human experience) intermediate or last *means* to actualizations of the sole *value,* positive affectivity. The general enumeration—and in the indefinite diversity of human life no enumeration can be either exhaustive or final—of these durable *means* to value is a worthy task for a science of morality, but it would needs be done systematically and be preceded by the establishment in ethics and axiology of the basic postulates from which may follow deductions to the specific moral rules. This task—the construction and continuous revision of a moral system—is not, as has been assumed throughout human history, one for philosophy or religion. The latter, despite its historical presumptions—dating back to the time of the first shaman or theurgist in the morning of prehistory—is totally without the means, as is shown in, among other ways, the flatly contradictory and equally unfounded claims of its "Two-and-Seventy jarring Sects." Philosophy, unless, and just in so far as, it becomes empirical science, is equally without the means—no amount of pure cogitation will issue in truth concerning matters of fact; its fruitful and incontestable task lies not in the practical realm of morality but in the critical examination of the basic concepts, postulates, hypotheses, and methods of axiology.

We turn now to a consideration of what, after that of *ought,* may be termed the secondary conceptions of ethics.

Chapter 4

THE SECONDARY CONCEPTIONS OF ETHICS

UNDERLYING ALL ETHICAL INQUIRY is the concept of *value*. This concept has been explicated at length and, it is to be hoped, with some precision. Central in ethics itself is the concept of *ought*. It is this which traditionally has been thought to distinguish and forever separate ethics as a normative study from the factual sciences. The conception of "oughtness," as opposed to "isness," has in the past been seen as the central and impregnable stronghold of the moral disciplines. But, it is now claimed, this stronghold has been logically reduced and there is no longer warrant for continuing the separation. If this be so, then the outlying works, which depended on the stronghold for their sustentation, must also fall. Such are the allied or derivative conceptions of ethics—as *good* and *bad, right* and *wrong, evil, duty, responsibility, obligation, happiness,* and *justice*. We shall, therefore, in briefer compass bring these concepts within the scope of our hypotheses by defining them in terms of the hedonistic value principles, and thus demonstrate, at least by implication, that the range of facts to which they apply is explicable in the hedonistic axiology. In view of the extended presentation of the material relating to *value* and *ought,* it will undoubtedly prove sufficient, and compliment the reader's intelligence, to render these secondary ethical concepts merely in the form of suggested definitions, with a few remarks added in the interests of clarity and of adumbrating the extent of the fields to which they severally apply.

I. Basically, the meaning of the term *good,* whether noun or adjective, derives from that of *value,* or more specifically *positive value*. Value has been defined, in terms of the postulates of the present system, as affectivity occurring in the relational contexture

determined by the reaction of an organism to a stimulus object. Good, then, may be taken as a general adjective predicable of all those objects which have occasioned, are occasioning, habitually do occasion, or probably will occasion positive affectivity when forming a relational contexture with any organism. Such objects are *good for* that organism. Just as *value* is always *value for,* so *good* is always *good for;* there is in hedonism no more absolute good or goodness than there is absolute value or the absolutely valuable.

It is evident in this view that *good* must be relative and be subject to a time reference. That which is *good for* one organism may be *bad for* another. That which is *good for* an organism now, for example, a baby-rattle, will not necessarily be *good for* it ten years hence. No object, apparently, is good for all organisms nor for any organism at all times. The adjective *good* is not applicable to the universe, since the universe is a whole and a relation can only exist between parts. Even if "universe" be used to denote all that which is apart from man (environment in the largest sense), still the concept of *good for* appears not applicable to it, since there is no evidence to show that the universe in this sense is affected by its relation to man—that is, there appears to be no warrant for saying that man is *good for* the universe. (We shall return to this matter in other connexions.) *Good for* may, however, be predicated *of* the universe (in the same limited sense), since any organism may be affected, positively, negatively, or indifferently, by its most general relations to its total environment. With Browning, a man may exclaim, "All's right with the world"—meaning, "the universe is good for me"; for the nonce he is experiencing, or sanguinely expects to experience, positive affectivity in his most general relations with his self-exclusive universe.

At this point we may diverge for a moment to suggest a fairly obvious answer to a facile and often repeated objection to a relativistic account of *goodness.* It is said that such an account is the end of any sound moral theory, for if that is *good* for a man which provides or promises him pleasure, then any object or action whatever, even the most plainly repulsive and odious, may be called good, depending only on his perverted character or momentary whim. All that is necessary is that the individual should feel himself in some slight measure pleased. Thus, as long as the drunkard en-

joys his liquor he should be encouraged to continue imbibition; or if a person takes an obtuse delight in popular dance music, there can be no point in attempting the cultivation in him of a taste for Henry Purcell, Georg Philipp Telemann, or Robert Franz, for his present musical fare is, by definition, *good for him.* So too with the satisfaction of the burglar in maturing his felonious little plans; perhaps from others' points of view those plans are not good, but as for the burglar are they anything but good if they give him satisfaction?

In one way this objection has hold of the truth: at least within a limited time span, the activities of the drunkard, the musical ignoramus, and the burglar *are* good—they *do* occasion positive value. If this were not so they could not, save by extraordinary aberration, continue to attract adherents in all times and climes; it is their undoubted *values* which give such low-grade activities whatever they have of motivational and retentional force.

But in another way this objection is unsound. Even granting that such goodness might be felt throughout a lifetime, still it is overlooked that some other activity or activities might for the same individual be *better.* The objection fails to note, in other words, that there are degrees of goodness. Because one line of behavior promises a modicum of positive value and hence is, considered by itself, *good for* a certain individual, is not a sufficient reason for converting it into an ethical *ought;* some other behavior may well be *better for* the same individual.

The objection is thus aided by an ambiguous usage of the term *good.* That which is simply *good for* a person, in the sense of providing him with positive value, and that which is *good for him to choose,* in the sense of providing him with greater or maximum positive value, are obviously not always or often the same. Ethical behavior chooses, and ethical precepts arbitrate, between competing goods, that is, feasible lines of conduct each of which is good. Such problematic situations are in fact far more common than those which arise between good and bad alternatives.

The answer to the present objection, then, lies in pointing out a further refinement in the meaning of the adjective *good:* that is, *merely good* as contrasted to *better* or *best available.* When we are discoursing on the abstract level we may speak of the class of things

merely *good for* some organism or class of organisms; when we are dealing with an individual's or group's conduct we may wish to restrict *good for* to that which, in given circumstances, is *best,* that which promises the highest degree of goodness. With this general distinction in mind, any air of apparent paradox disappears from such judgments as, "Undoubtedly, listening exclusively to popular dance music all your life would bring you a certain degree of pleasure, but still it is not a good thing to do." Strictly, the judgment should be phrased, "It *is* good, but learning to appreciate Purcell, *et alii,* would be *more* good." This suggested distinction is evidently separate from the other which would say of burglary, "Perhaps it is good for you in the short time you can carry it off successfully, but in the long run burglary will prove to be really not good for you at all"; here the distinction is made between short-term value and aggregate value—burglary commonly and fortunately being negative in the latter respect. In the narrower ethical and moralistic sense, *good* is therefore doubly relative: to an affected organism and to the value contents of the organism's feasible alternative modes of behavior in any given situation.

Within this general conception of *good* (adjective) as characterizing stimulus-response contextures with respect to their potentialities of positive value, there are an indefinite number of other shades of meaning, the two most important being those which stem from the concepts of terminal value and instrumental value respectively. We shall not attempt to follow these out further at this point. It is believed that a constant reference back to the fundamental modes of the term *value* will reveal the unambiguous meaning of all such variants, as in "God is good," "So-and-so is a good man," "This is a good hammer," "Milk is good for babes," "It is good to avoid parallel fifths in strict counterpoint," "That is not good sportsmanship," "An overdose of sleeping tablets is a good way to commit suicide," "P-QR4 is not a good opening move," "I bid you good night," "Cambridge has a good tutorial staff in Greek," "St. Julien is good with a roast, but Pommard is better," "Too much of a good thing," "Good fences make good neighbors." The connexion of several of these ascriptions of goodness with positive affectivity is remote, but the connexion must always be present in some degree or the ascription is false; in the final analysis

there can be no character of goodness unless some organism experiences, or is likely to experience, positive affectivity.

Good (noun) or *the good* is no less ambiguous or loosely used than the adjectival form of the word, but again its useful meaning rests on the conception of *value*. *Good* (noun) may be taken as practically synonymous with positive value. *The good* we may define as that universal having for its denotata all actual or possible instances of goodness occurring in stimulus-response contextures where but one organism is concerned and during a limited period of time. Thus, corresponding to *good for,* we have *the good for.* The good for me is all that class of objects which, during a limited time, have occasioned, do occasion, are occasioning, or probably will occasion, positive value in the contextures they form with my "self." Among the denotata of this class are—corresponding to the above tenses of *to occasion*—"Robert Herrick's *Hesperides,*" "cats," "this hot bath I am sitting in," "the life insurance annuity I shall receive at the age of 60."

It is evident that if *the good* is applied at once to a number of organisms or to an indefinite time, it will become as a term vague and self-inconsistent, for among its denotata with respect to one organism will be instances of positive value which will at the same time be instances of negative value for some other organism, and similarly with respect to separate times for the same organism. Failure to recognize the fact of this limited and relative applicability of the grandiloquent term, "The Good," is responsible for much of the historically existent confusion and futility in ethics. At best, a conception such as *the good* can serve a useful purpose in ethical investigation, but only if carefully qualified and discriminated. Thus it is not inadvisable at times to make heuristic, instrumental, or expository use of such a phrase as, "man's good" or "the good life for man." Such a phrase may properly be regarded as denoting the drinking of water, the eating of food, sexual intercourse, the enjoyment of art, nature, friendship, altruistic (so-called) behavior, the pursuit of knowledge, and so on, for by and large these classes of objects have been productive of positive value and it is probable both that man will retain his basic nature and that he will experience pleasantness in relation to these objects for an indefinitely long time into the future.

But immediately, as qualifying even this use of *the good,* we note that not for *all* men have these things been value-productive (for example, sexual intercourse for psychopathic individuals of the type of Paul of Tarsus or Augustine of Thagaste), nor value-productive for most men at *all* past times (as the pursuit of abstract knowledge prior to about the 45th Olympiad), nor value-productive for any man upon *all* occasions (for instance, meat when I am satiated, the gift of a book of nursery rhymes in years of maturity, the enjoyment of Nero's fiddling to the inhabitants of burning Rome). In point of fact the terms *good* or *good for,* like all other universals (and particulars, for that matter), are necessarily vague and elastic. Their usefulness, and hence their truth pragmatically speaking, lies in their employment as instruments enabling us to approximate a satisfactory adjustment to our environment. In view of this fact, and the previous demonstration of the scientific verifiability of value propositions, it will be seen that such assertions as, "In the exercise of his faculty of reason lies man's highest good," "An exclusive and predominant set for the acquisition of material wealth is not good for man," "Man's good and the goods of the rest of organic creation are in large measure irreconcilably at variance," are open to objective investigation, the accumulation of evidential data pro and con, and a scientifically supported conclusion of probable affirmation or denial, in part or whole.

II. The signification of the term *bad* exactly parallels that just elucidated for *good,* save that it is based on negative value. The other observations apply: bad is, strictly, *bad for* (a particular organism); there is no absolute bad or "The Bad"; the universe as a whole cannot meaningfully be characterized by the adjective; assertions containing the term are not thereby placed beyond the pale of scientific verification, and so on.

With the consideration of this term we have reached a point in the argument at which we may dispose with some assurance of such objections to a hedonistic or other scientific ethics as that raised by one of the most eminent of contemporary philosophers—to the effect, namely, that science is incapable of proving it bad to enjoy the infliction of cruelty—the implication being that it *is* bad but that the criteria of goodness and badness lie beyond the purview of scientific method.

But first we must guard against several ambiguities. To begin with, the enjoyment itself (positive affectivity) is certainly not bad; in fact just in so far as it is positive it is good; it is that in the attainment of which the good is realized. Nor is the individual's enjoyment (positive affectivity) bad because of any results, for it is not a means but an "end," and hence results in nothing; the affectivity he feels is just what it is. But though the *enjoyment* itself cannot be bad, the *enjoying* (of cruelty) may well be: for the former is an "end," the latter a means. Further, though the latter is in this case admittedly a *last* means (to this perverted individual's pleasantness), that does not prevent its also being an *intermediate* means to other results, which in their turn may have affective consequences of a quite opposite character. Third among the latent ambiguities is the question of whose badness is being referred to. Surely it would be admitted that to enjoy the infliction of cruelty is bad *for* other people. This needs little demonstration. The point at issue, then, appears to be whether or not science can prove that enjoyment of this sort is bad *for* the enjoyer.

These ambiguities cleared away, I think it certainly can, and that readily. Nothing more is really required than to demonstrate from history and anthropology that the omnipresent social structure is such that indulgence in cruelty procures the doer little pleasantness and almost certain, cumulative, unpleasantness. This constitutes proof (probable, of course) that the habit is *bad for him*. The procedures of science with respect to modes of moral behavior are no different nor less practicable than they are, say, in proving to a man that he ought to brush his teeth, use fourteen-foot girders in building a certain bridge, or take out a life insurance policy. Indeed the applicability of science to ethical behavior, considered as evaluable in terms of probable consequences, is so evident and so closely analogous to its recognized applications in other fields concerned with the probable results of behavior that the only real difficulty in the matter is to understand how such an objection could have been seriously entertained.

By the above phrase, "omnipresent social structure," is not meant any particular legally codified set of political arrangements (obviously none such is "omnipresent"), but simply that broad pattern of probable behavior which holds for any social group by reason of

the basic fact of human nature that injury provokes retaliation, whereas forebearance, and, still more, kindliness, invite reciprocation. This fact of human nature—one of the great lessons so eloquently enjoined by the New Testament—is every whit as "objective" as the analogous fact (which too supports an analogous judgment) that a child who finds its chief delight in playing with fire will sooner or later get burnt. In either case—playing with fire or playing with cruelty—the player will find that in the nature of things "the cards are stacked against him."

This adverse judgment on cruelty is not to be refuted by the citation of historical instances where cruelty has "paid off," any more than playing with fire is to be defended by the mention of particular occasions when the child did *not* get burnt. For one thing, the condemnation of cruelty is not so to be refuted because isolated individual instances do not determine moral judgments, but only mass or average tendencies. Secondly, because, as the writer will venture to assert, any historical example of instantial or habitual cruelty which is produced can be shown, either actually or probably, to have resulted in unpleasantness (or what in hedonism is the same thing, a diminution of pleasantness) to the doer. Take a group case. Certain savage tribes practiced against enemies what we may call cruelty as a matter of settled custom. Did it "pay off"? I should be interested in being shown an instance. In every case which has come to my attention the net tendency of the custom has been to render the existence of the tribe and its members "solitary, poore, nasty, brutish, and short," to keep it in such a state of insecurity as to prevent the settling to a stable agricultural life and the consequent benefits of a more extensive division of labor, to forbid its entering into relations of trust with its neighbors, and to hold it permanently submerged below the level of civilization and its characteristic means to value. (Whatever such tribes had in the way of primitive culture and its benefits was of internal origin and, significantly, made possible necessarily by a tabu upon the enjoyment of cruelty within the group—without which tabu no group, indeed, could continue to exist as such.) Or take an individual case. His Most Catholic Majesty Philip II of Spain was the most powerful monarch of his time and lived in regal splendor to the ripe age of 71. He likewise surpassed even his century, his country, and his Church

in his addiction to cold-blooded cruelty, for which reason among many others he is justly regarded among those who have given themselves the pain of studying his character at first hand as one of the most odious specimens of human vermin ever to infest the earth. But surely, if anyone could do so, a man in his position should have been able to succeed in reaping a balance of pleasure from his cruelty. Did he succeed? Anyone who could suppose as much after reading of his career, even as reflected in his personal correspondence—his constant exposure to hatred and contempt, his never-ending uneasiness year in and year out, the clouding of his mind by his stupefying bigotry, his self-denial of almost every grace and sweetness which accrues to normal, kindly human intercourse, his continuous preoccupation with expediency, intrigue, and treachery, made necessary by the reaction of other powers to his own immorality, the revolt of the Netherlands, the provoked hostility of France and England, the insurrection and destructive expulsion of the Moriscos, the cumulative frustration of "his insane policy which brought Spain to ruin"—anyone who could suppose from Philip's immunity to merely legal retaliation that his cruelty brought him value would, in my opinion, thereby himself exhibit a dangerous deficiency in his capacity for moral apprehension.

Such instances from history—whether pertaining to individuals, tribes, groups, parties, or nations—could be multiplied many thousandfold. Indeed, there is no truth which history more clearly or forcibly teaches than the inadvisability of cruelty as a source of satisfaction. The chief circumstance which permits the continued practice of the trait in our day is mankind's inveterate, tragic obtuseness in refusing to amend its conduct in the light of history's lessons. On these suggestions as to the possibility of scientific "proof" in moral affairs, and on my essential disagreement on this issue with the eminent philosopher referred to, I am willing to stake the entire ethical argument of this essay. If science or empirical philosophy cannot provide decisive evidence in so obvious a matter as the badness of enjoying cruelty, then I should think any rational ethical discourse to be an impossibility, should acknowledge with regret that mankind might as well save the futile expenditure of mental energy on such subjects and live by unthinking animal impulse, and should myself abandon the philosophical profession as a

silly and hopeless delusion. Furthermore, if at this stage of the argument the reader cannot understand in what sense and on what grounds it may be validly asserted that science *can* prove it bad to enjoy the infliction of cruelty, then I should say that he has wasted his time in reading to this point and should advise him to read not a page further, for in so doing he would simply waste more time.

Let the reader take note, however, that in answering the cited objection the question at issue is not after all whether the enjoyment of cruelty *is* bad (perhaps it is not) but whether science can prove it to be bad. That is to say, it is a methodological, not a factual question. The reader may disagree that the particular instances demonstrate what the author alleges they do, and he may disagree with a similar conclusion being drawn from any amount of other historical or anthropological data. But if he grants that from such data any conclusion can be drawn, favorable or unfavorable, relevant to the question of cruelty, he has admitted all that is required to overthrow the instanced objection. For in the very fact that certain consequences can be inferred to follow with a determinate degree of probability from this behavior pattern, the conditions required by the definition of badness (or goodness) are fulfilled, and the inference itself, assuming it to obey the customary canons of scientific (logical) procedure, *is* the proof that the character of badness (or goodness) is predicable of the behavior pattern.

As for the practical import of this or any other "proof" in ethical matters, it is true, as Hume for one clearly recognized, that reason cannot motivate or determine conduct. Only affectivity (the most fundamental of Hume's "passions") can do that. Reason simply points out the connexions between events; whether any one of these events or event-connexions determines conduct is solely a matter of the affectivity associated with it. By itself—considered apart from any affectivity, or as we say, with only indifference affectivity present—any event whatever, or any connexions of events, are matters of total indifference to the organism. But though because of the nature of the organic mechanism, reason is limited to this deictic function, still it can "persuade" or "dissuade," for it can point out that certain conduct leads to last means not, as an individual may suppose, associated with pleasantness but the reverse; or it can show that certain last means which *are* the sufficient

conditions to pleasantness are not, as the individual thinks, the consequences of certain intermediate means. When the individual comes to believe thus (that the actions in question are *bad for him*), he normally will have his feelings, and hence his conduct, altered. Of course science can no more persuade a madman in this than it could of the incommensurability of the diameter and the circumference of a circle. But neither science nor ethics nor axiology was developed for madmen. Their behavior must be "persuaded" by stimuli which operate—as is stated in our first postulate—without the cooperation of the nervous system.

III. The term *evil* appears by its usage to be largely synonymous with bad—*evil* being somewhat the more pretentious, and portentous, term. Its definition or elucidation would therefore similarly rest upon the fully discussed conception of negative value. Evil, perhaps, stands in closer connexion with negative terminal and bad with negative instrumental value.

Evil, as commonly employed, is of course an anthropocentrically grounded expression. It ordinarily implies the ascription to some object of an objective and persistent character whereby it works harm to man and likewise opposes itself to the supreme deity who presides over man's interests. Hence arises the recurrent, artificial, and futile Problem of Evil. A naturalistic view like the present one rejects this manner of looking at things; it declines to take a purely human response to certain classes of events and project it upon the universe, in effect puffing up man's self-esteem by dignifying his miniscule affective reactions as universal traits; nor does it see reason to label "a Problem" the existence of factors productive of disvalue to man (for example, malarial mosquitoes), while neglecting to recognize an equally great Problem in why man himself should exist, being the greatest of evils, both to the remainder of earthly creatures and to himself. Hedonism does not claim to solve the traditional Problem of Evil; it claims to dissolve it.

Actually, once the relativity of the conception of evil is recognized, there is no more and no less a problem with respect to man's negative value experiences than with any other class of natural phenomena. One might with as much sense and warrant ask, Why must every infant now and again square away its little mouth and bawl, evidently at such moments finding the external universe

totally evil or bad? Why is the world not so ordered that every moppet can be provided at each instant with exactly what will excite in it positive affectivity? Why, in this vale of tears, must positive value now frequently entail negative value later, and vice versa? Why is man, with unlimited desires, placed in an environment of limited satisfactions? Why are these clouds, minuetting statelily through the empyrean outside my window, just the shapes they are and not other? Why do pigs not have wings? Why do sweets not grow on trees, champagne gurgle in the brooks, and the land flow with milk and honey? Every one of these questions, save as it expects the scientific, descriptive analysis of observed correlations, in which consists the only rational answer to "Why?" is misleading, marcaronic, and profitless. Man's proper question with respect to those classes of events which he may justifiably call *evil for him* is, By what practical means may the occurrence of such events be minimized? The existence of the classes, and hence of *evil* itself, may simply be taken as part of the given in experience. Just as meaningful and noetically important as to ask, "Why does evil for man exist in the universe?" would be to ask, "Why should evil for man *not* exist in the universe?" or, "Why does evil for grasshoppers, grouse, and greyhounds, baboons, bass, and bacteria exist in the universe?"—or, more succinctly, "Why, in God's irony, must the good of one species be the evil of another, and turnabout?" Indeed, on the whole man would experience less of evil, in the form of uneasiness, wasted intellectual energy, and hypochondriacal feeling-sorry-for-himself, if man were less concerned about *why* Evil exists.

While the discourse is on the subject of evil, we may note, as suggested at an earlier point in the essay, the complication added by man's own irony; that that which has chiefly caused man to be concerned with the pseudo-problem, because of its being accounted the greatest of evils—namely, the omnipresent fact of death—is to the one to whom it happens no evil at all. Evil is a derivative of unpleasantness, and unpleasantness is the only negative value. To "suffer" death can occasion no disvalue, nor any value at all, for in the fact of death the organism ceases to exist—such being the very essence of the phenomenon. True, anticipation of death may occasion disvalue to an organism and its actual death may occasion disvalue to its friends or to the world. But to the organism itself its own

death can be nothing, for no organism can enter into a value relation with its own non-existence.

No doubt it is chiefly the unpleasantness felt by the survivors of a cherished person's passing which has given emotional urgency and preeminence to the Problem of Evil. But the unpleasantness felt by the survivors is not really in *his death*—however great the altruistic satisfaction of thinking it so—but in *their own loss*. This may be, and probably is, a justifiable occasion for concern in a sense in which the simple fact of a dispersion and rearrangement of molecules cannot be. With this, however, we realize that the "evil" in universal death is in reality on the same footing as the disvalues arising in any of the other relations between an organism and its environment. Once more, the proper and fruitful "problem" in the whole situation is how best to respond to those events which may properly be called evil for the particular organism.

IV. Since, as we have seen, there is a third form of value, namely indifference value, there must correspondingly be a third concept to go with good and bad. This would of course be *indifferent* (adjective) or *the indifferent*. The term would denote those objects with which any organism enters into a stimulus-response relationship without the occasioning thereby of either positive or negative affectivity. All the limitations just pointed out in the case of good, bad, and evil apply in an analogous manner to these terms and their derivatives.

The class of the indifferent appears to be the largest class in the career of any organism. Much the greater part of the objects with which an organism deals, as well as the actions which it performs, have no discoverable positive or negative affective consequences; they are, from the feeling side, indifferent to the organism. After the Stoics, it is an ideal of human conduct to learn to be as little affected by the environment as possible—that is, simply to know, to receive the world, with such apparent indifference as the petals of a lotus flower might on a halcyon night endure the weight of moonbeams. For one who espoused and attained to such an ideal, the world would contain only indifference values, actual and potential. Whether the complete attainment of the Stoic pattern of *nil admirari* would not be the last abandonment of one's common humanity may be left here an open question. Whether such attain-

ment and abandonment would be *desirable,* while in practice a question difficult of resolution, is open to a simple theoretical answer: if for any particular organism there exists *in fact* (if it is objectively probable) in the mass of his life activities an aggregate of potential negative value for the period of his probable life span, then the cultivation of the Stoic ideal is for him desirable (it would occasion a lessening of negative value); if an aggregate of potential positive value, then undesirable (it would occasion a lessening of positive value). As the world and human nature are at present constituted, it must decidedly be asserted that for the average individual the Stoic withdrawal is less desirable than the Aristotelian ideal of affective acceptance through the completest actualization of the potentialities of the form *Homo sapiens.*

(This adverse judgment on Stoic apathy should not be considered contradictory to the previous extollment of Buddhist renunciation. There is between them a fundamental difference in attitude: the former neglects or rejects, the latter accepts. The Stoic way—especially as it tends to the ascetic Cynicism which lies never far back of it—diminishes the richness of living experience; the Buddhist denies nothing of experience—not even its darker sides. His renunciation is a refusal, not of experience or action, but of being blinded by ultimate self-concern with the outcome—for renunciation extends ultimately even to the tranquil demission of any solicitude for the indiscerptibility of the self. *Nunc dimittis.* . . .)

Whereas the majority of the affective experiences of almost any organism are, as we have said, indifferent, it appears that absolutely all the affective experiences (if we may use such a phrase) of inorganic nature are indifferent. In more precise terms, in those stimulus-response contextures where an organism is focal, we experience (if we are the organism) in the majority of instances indifference affectivity; in those stimulus-response contextures where an inanimate object is focal, we infer (we can never experience) the occurrence (if any) of indifference affectivity. Thus, I kick a stone; the stone stimulates me; I experience pain in so great a degree that unpleasantness also occurs; the stimulating object "has" for me negative value. But simultaneously another stimulus-response contexture has occurred. I have stimulated the stone; it responds, predictably enough, by rolling off a few feet in the op-

posite direction. But from nothing in its behavior can I infer the existence of positive or negative affectivity in this contexture in which the stone is focal. From its "point of view" it is neither pleased, displeased, nor even indifferent; it simply does not "care," it is simply not "concerned" that it has been kicked; it is neither "for" nor "against" the occurrence of the event, or a repetition of it. Or, under the alternative, hylozoistic view previously mentioned, the stone is at most indifferent—it may be considered to "feel" or experience indifference affectivity. At any rate, within the limits of this allowable, and for the present unresolved, ambiguity, we may from overwhelming evidence assert that in every instance where external, inorganic nature reacts to man, or to the other organisms, it does so with complete indifference. To put the matter adjectivally, man and his fellow creatures on earth are completely indifferent to nature. No more than the stone does the ocean "care" that ships burden its face, the earth that it be tilled, rivers that they be dammed, the air that it be breathed and polluted, the stars that their light be bent and gathered and caused to react with a layer of colloidal silver chloride on the astronomer's plate. The mild sun of California winter will warm and gladden the hearts of the human beings on whom it shines with as complete an absence of "concern" as an Antarctic blizzard at the same time will freeze, kill, and bury Captain Robert Falcon Scott and his gallant companions. The consequences of such a tragedy as that of Sacco and Vanzetti will continue to haunt the consciences of many generations of Americans, but neither on that dark night nor at any time since have there been signs in the sun, and in the moon, and in the stars to tell that the heavens partook in humanity's dismay. If, as he appears bent on doing, man succeeds in blowing the earth to meteoric fragments, no evidence based on any past experience leads us even to surmise that the remainder of the solar system would in the slightest degree be "interested," no, nor the galaxy of which our sun is but a minor member, nor any other galaxy to the farthest reaches of the universe.

These observations, and the profounder train of thought which doubtless they will induce in the mind of the perceptive reader, will help more amply to define the terms *indifferent* and *the indifferent.*

In concluding this section I should wish to assert my personal belief that the full recognition and acceptance of the evident fact of nature's complete indifference to man, in the general sense just illustrated, is the very foundation stone of humanistic wisdom. And if, as I believe also, wisdom is man's chiefest means to happiness, then this great fact is likewise the foundation of his ethical well-being. To fail to recognize it, to shrink from it under the blind emotional impulse of self-centered desire, to believe the contrary by the prompting of a petty lust for self-importance, to let undisciplined wishes mold a false *Weltansicht,* in brief to commit in some one of its many forms the "pathetic fallacy," is to withdraw into the darkness of endless confusion where every contrary occurrence is a cause for alarm and anxiety, to destroy the possibility of a sound ethical structure, and to render most improbable an attainment to the further reaches of human felicity. That hitherto almost every system of ethics and almost every variety of religion (with one memorable exception) has embraced this fundamental error as being unquestioned truth is, I think, the most far-reaching failure in man's efforts to understand the world and to find a way of life in harmony with his given environment.

The reader may wonder if perhaps the arguments based on "empathic analogy," upon which we have relied to give the hedonistic axiology a universal extension, are not themselves instances of this "pathetic fallacy." Are we not in the same dubious manner reading human traits into the non-human environment? The question is a useful one to consider, for we must always guard against that very danger. The answer I believe, however, to be no, and it rests fortunately on perfectly clear and objective evidence. It is a matter of the warrantability of the respective analogies; granted that there is *some* analogy between the behavior of man and of inorganic nature, and granted that the analogy between man's behavior and that of other organisms is not *total,* still the degrees of each are such that the former analogy, to impartial consideration, is false and the latter probable. So long as the multitude of facts which subvert the one (adulatory) analogy and support the other (humbling) analogy is open to empirical verification, mankind is not likely to err greatly in these inferences—unless it does so through weak willfullness.

V. The word *right,* in its adjectival, adverbial, and substantival forms, is one of the most ambiguous and troublesome words in the history of human thought. In defining it within the present axiological system and thus attempting to bring it into some clarity, the first thing to note is that in general *right* has reference to intermediate means, as contrasted to *good,* which refers to last means and ends. In typical usage we say that a man is acting rightly and that the object or motive of his conduct is good—that is, he is choosing the correct means to his end and the end is itself good. (Of course in this phrase as it is generally intended, *end* in reality signifies *last means.)* But though this usage is on the whole acceptable, it has many exceptions and it does not sufficiently exclude ambiguities. Let us then look at the concept more narrowly.

Right as an adjective appears always to refer to means looking toward ends or consequences. It cannot meaningfully be applied to objects as such. The table upon which I work is neither right nor wrong; it simply *is.* Likewise the work which I am doing upon it is, in itself and considered apart from its consequences, neither right nor wrong. The linguistic and mathematical symbols I inscribe upon the paper are neither right nor wrong in themselves; they simply are what they are. They are right only when they are considered as representing the correct solution to a problem in expression or numeration.

Genetically, then, we may take the adjective *right,* applied to an object, as asserting that that object (or action) is the correct intermediate means to a given end (more precisely, last means) in given circumstances. *Correct* here means probable or most probable—probable of resulting in the given end in the given circumstances. (The meaning of *correct* in the case of the linguistic and mathematical symbols just cited is of course more complex than this, but it is foreign to our present purpose, being a semantic or a logical, and not an axiological, problem.) Thus if our former cat is hungry, the correct means to allay its hunger is for it to eat. In the general sense to which we have thus far attained, eating is the *right* thing for it to do under the circumstances. But as, in the maze situation, it cannot eat until it has proceeded along the left alleyway, it may further be asserted that that choice is the *right* one for it to make, that is the one which will probably lead to the goal in question.

But now, as we have seen, it may be asserted in the identical circumstances that the cat *ought* to choose the left alternative. This illustrates the intimate connexion, often identity, between *right* and *ought*. In any given circumstances and with any given goal an organism ought to do what is right, since what is right is most probable of actualizing that goal, which is basically the meaning also of *ought*. If the cat ought to eat meat, then it is right that he should eat it; if it is right, then he ought to eat it.

Now in hedonism the basic postulate is that all organisms do seek personal pleasantness as an end and that personal pleasantness is their sole and only "end." This being granted, and ethics dealing with behavior in its relation to the supreme end, it follows that *right* as an ethical adjective must mean that behavior which in any given circumstances is likely or most likely to lead to consequent experience of pleasantness by the organism concerned. (The relation to *ought* is again evident.) By the elimination of one variable, the end or goal, we have left a simpler definition of *right*—more exactly, of *ethical right*. Thus: is this action right? Will it probably, in the circumstances, lead to the greatest positive value for you among all the feasible alternatives? Yes, it probably will. Then this action is right (for you) and you ought to carry it out.

The words "likely or most likely" were used to indicate that we apply the term *right* sometimes to what will probably produce a maximum of positive value and sometimes to one or more actions, each of which will probably have an aggregate effect of some positive value. Thus there are a number of ways in which I may go about procuring my supper, each of which is right, that is, adapted as an intermediate means to its last means of eating and to its end of experiencing pleasantness. Nevertheless, we commonly say that though each of the several ways may be *right,* yet one in particular is *better,* and furthermore that this is the way we really *ought* to adopt. This will illustrate again the intimate connexion between these three ethical concepts and will also show that *good* (*better*) is frequently and more or less loosely applied to even remote *intermediate* means. Or we might say that some particular way is *the right* way. Such vagaries of usage can be—indeed, must be—tolerated, but always we should be prepared to test and clarify each

term through its relation to the unifying concept of positive affectivity.

There appear to be several objections to this view of the nature of *right*. One which has found expression in various forms is: are we not reducing *right* to mere *prudence?* Are we not saying that what is right for a man to do, in any passing circumstances, is only that which probably will procure him some, or possibly the maximum, personal satisfaction? Are we not tarnishing the splendor of ethical rightness by equating it with narrow, albeit enlightened, self-interest?

The answer of hedonism to all of these questions would be, in a general way, yes—and what of it? What is lost by interpreting right conduct as prudent conduct? What relevant ethical data are left out of account in taking the norm of rightness in behavior as generally equivalent to action in accordance with "enlightened self-interest"? (The qualifier, "narrow," must be rejected; nothing in the hedonistic system suggests that in reckoning the consequences of conduct any limitation, other than the practical one of serviceability to living problems, should be placed on the estimation of ethical character.) Hedonism would maintain that if all men were to adopt and act by this standard of ethical rightness—call it prudence or enlightened self-interest or anything else—humanity would attain a general degree of happiness it has never attained historically and never could attain, because of faulty assumptions or impracticable formulations, through the acceptance of any other ethics thus far propounded. (An example of faulty assumptions: the Golden Rule; examples of impracticable formulation: the sixth Commandment, Plato's imitation of the Idea of the Good, Kant's compulsion of Duty, Pascal's reasons of the heart, Royce's ideal of Loyalty, religion's will of God, or popular *mores'* voice of conscience.) However, the detailed defense of these pretensions of hedonism would carry us from our course and convert the present work, contrary to its purposes, from an essay in theory of value to one in the derivative field of ethics. Suffice it to say that the objections suggested depend for their force on the assumption of some other ethical and axiological system, the validity of which is in prior need of demonstration. There is, for example, little force in the accusation that hedonism reduces *right* to *prudence*

unless it has been shown that some greater *is* being reduced to some lesser. This has in nowise been accomplished, at least to the author's satisfaction.

The merely psychological motive for drawing a distinction between ethically right and "mere" prudent conduct, and giving the palm of approval to the former, is fairly obvious: every individual prefers to think that other individuals are acting in a manner agreeable to him, not from any sort of calculation, conscious or otherwise (which calculation it seems easy to believe might result differently upon another occasion), but from the influence of good habits or by reference to abstract moral principles (which can be relied on for their stability). Besides, no one likes in any case to be the object of others' calculations; it is humiliating to self-esteem. Most humans will think a friendly dog more amiable than another human whose actions, however beneficial, are the result of evident deliberation.

The objection in question is, however, largely artificial. The theoretical "reduction" of right to prudent conduct in nowise implies that men actually do or should consciously calculate the consequences of every proposed action. As Aristotle insisted, men are creatures of habit and the possession of good habits of behavior is the very essence of the moral character. Nor would hedonism, any more than another ethical system, laud or even tolerate the "unprincipled" individual. Hedonism insists only that after analysis (when analysis is called for) the justification of every principle or habit of conduct, and the meaning of the predicated adjectives, right and wrong, must lie in the factual probability relations of those habits and principles to the actualization of affectivity in some organism. In this view, habits and principles are, or should be, but past calculations made by the organism or learned from others and crystallized in relatively permanent (and non-conscious) stimuli to beneficial behavior.

A second and more fruitful question which might be raised against the view of rightness just expounded would be phrased something like this: the hedonistic account insists that *right* is in reality *right for*—a particular organism; that object or action is *right for* which is a means to its own happiness; but how about the happiness of others? Contrary to accepted usage, is right to be given

no social, but only a selfish, meaning? Is that which is likely to please the organism right even though it will probably cause unpleasantness to others?

The answer to this objection lies ready to hand; indeed, it has been clearly foreshadowed in various passages of this essay. Nothing has ever been stated or implied to the effect that the experience of positive value which is the criterion of rightness should, or even could, be attained without consideration of the precedent affective reactions of other organisms. In some cases these reactions will be intermediate means to attainment of the organism's happiness, in other cases last means (as in the case of the "altruistic" character, which derives an immediate positive affective reaction from the inferred positive affective reactions of other organisms, or as in the case of the phenomenon of love between the sexes).

This leads us to recognize that to the genus *right acts* there are two (more or less overlapping) species: (1) acts the probable consequences of which will probably be of affective concern to others than the acting organism; and (2) acts the probable consequences of which will probably be of affective concern only to the acting organism. (Speaking on the cosmological level, the latter is possibly an empty class, for, the course of nature being a continuous process, every action whatever must have an indefinite number of consequences, some of which are bound to affect other organisms sooner or later. I cannot so much as raise my finger in the air but what the whole future history of the universe will be in some measure different from what otherwise it would have been. Though this is true and has the profoundest influence on a synoptic view of man's place in the cosmos—or, if I may use the term guardedly, on the shaping of a religious attitude, as in the Buddhist doctrine of karma —still for the practical purposes of ethics it is allowable and preferable to draw the distinction indicated.)

The distinction being drawn, we see that in an ethical sense (as "ethical" is generally used) *right* can only be applied to actions which fall in the first category. Actions of the second category are no more *ethically* right than is the choice of a particular screwdriver to fit the screw we wish to sink into a piece of furniture—even though in such an instance we may say loosely, "*This* screwdriver is the right one." To push the matter to an extreme, the last

creature on earth could act, ethically speaking, neither rightly nor wrongly, since there would then be no other organisms to be affected by his actions; he could act rightly or wrongly only in the narrower sense of conduct prudentially calculated to enhance his own positive affectivities through inorganic intermediate and last means. It of course follows that actions affecting only the inorganic environment cannot have ethical significance; morally it is neither right nor wrong merely to kick a stone, mine gold, dam water, contemplate the stars, cross a desert, and so on, for apparently, as we have had occasion before to remark, the desert, the stars, the water, gold, and stone "care" not what is done to them.

But we shall still not have attained to any real clarity as regards the adjective *right* unless again we recall and apply the dictum that, as in the case of every axiological concept, *right* is relative to an organism. Now it is evident that the organism to which we refer when we use *right* in an unqualified ethical sense is society (the particular group from whose point of view and within whose ideological matrix and universe of discourse the judgment of rightness is being made). Thus we have such usages as, "That act may be right enough for him, but it is not ethically right," that is, the act affects others, and, although it will probably procure at least temporary pleasantness for him, the net effect on society will probably be to produce a balance of unpleasantness. Such cases evidently involve a conflict of *right,* closely related to the conflicts of *ought* to which we previously devoted considerable discussion. *Right for* x is incompatible with *right for* the environmental society. In such cases, by common usage, what is *right for society* usurps the term (often assumed absolute) *ethically right.* This, however, is a linguistic and not a metaphysical preemption; in hedonism no actual or potential occurrence of value has any hierarchical precedence over any other. A rattlesnake's rightness in poisoning a human being in an effort at self-preservation is neither greater nor less in any absolute sense than the human being's rightness in killing what is to him a dangerous pest; human society, more articulate than reptile society, simply happens to support the latter view and has dignified it with the five-letter honorific, *right.*

That there are relatively so few instances in which *right for* an individual and *right for* society are in matter of fact opposition is

due to the social milieu in which almost every individual must live, and which indeed is essential to the actualization of his greatest potential values. As has been suggested in our discussion of the meaning of *ought,* narrowly selfish behavior cannot, by and large, be *right for* any individual because (1) the most significant behavior has consequences which are of affective concern to others, and (2) since the individual lives unavoidably within the social structure, the affective results of his behavior on others will in turn constitute stimuli which will induce behavior having affective results upon himself, either sympathetically or physically. Speaking in the ethical sense, seldom can a course of behavior be right for an individual and at the same time wrong for society; this would imply that in fact his actions would probably procure him aggregate positive value and society aggregate negative value concurrently. Any social situation in which this possibility became widely actualized would mark the dissolution and end of civilization. It is the ever-renewed task of the moralist and the legislator so to construct and adjust the framework of society that what is right for the individual is also right, or at any rate indifferent, for society and that what is right for society is also right for at least a majority of its component individuals. (It is difficult to see how this latter should *not* be the case.) That enduring norms of *ethical rightness* can be codified and promulgated is owing to the relative stability of "human nature" and the durability of social organisms. For example, care of offspring has been characterized as *right* conduct ever since the overture of history and in all societies; the significance in the hedonistic view of this usage of *right* is simply that the nature of man and the exigencies of his social structures have always been, and yet are, such that cherishing of offspring (at least those surviving the almost equally widespread and approved *mos* of infanticide in its several forms) is behavior which "has" aggregate potential positive value both for the individual, and for the social-group, organism.

To return briefly to the first of these two objections to the hedonistic account of *right,* it may now be seen that what it in effect asserts, is that there are two distinct types of motives—those of right or virtue, these being socially consequential, and those of prudence merely, these being narrowly self-consequential—and that hedo-

nism "reduces" all the former to the latter. It will by this stage in the argument have become evident that this is simply not so. Any kind of rightness, to be sure, depends for its validity on the affective consequences to some organism of a means, but hedonism has never (except perhaps among some of the followers, ancient and modern, of Aristippus) pretended that these consequences would be likely of favorable issuance, in cases in which the means was of consequence also to other organisms in a society, without careful and sympathetic consideration of *their* probable affective responses. Neither, therefore, is *prudent* conduct to be equated with inconsiderate selfishness, nor is *ethically right* conduct in hedonism fairly to be denigrated as being *merely prudent.*

Let it now be noted again in passing that the assertion of *rightness,* as here conceived, is theoretically as open to objective, scientific verification or disproof in any particular instance as is any other assertion concerning a matter of fact. No more than we admit the broader realm of value to be *sui generis* can we regard *right* as metaphysically of a different order than such predicates as heavy, red, convergent, improbable, pistillate, ferrous, fugato, astringent, imaginary, diurnal, aristocratic, and so on. The reason for this is that an assertion of *right* or *right for* is an assertion that, in certain circumstances and with reference to a particular organism and time, it is probable that a specific means or sequence of means will lead to the actualization of a given end, namely positive affectivity. Such an assertion is as much a "matter of fact" as any of the other means-end, cause-effect, condition-consequent correlations with which science now deals. Indeed, perhaps the chief justification of the hedonistic value definitions is that the problems in which they are implied become thus so readily accessible to pragmatic solution.

The foregoing remarks may be thought sufficient to define, or indicate pretty clearly the locus of definition, of the adjectives *right* and *ethically right.* A more particular definition would, however, require a great deal of further inquiry and exposition. Thus questions of intent and motive are usually considered necessarily germane. We do not ordinarily see fit to embellish with the title *ethically right* an act which only "accidentally" produced an instance of ethical good; the doer must have intended the conse-

quences. Or at least we should not wish to call such an act *virtuous,* even though fortuitously *right.* But such considerations—as well as a number of finer distinctions, with which the classic tomes on ethics are pregnant—may for the present be laid aside as merely derivative; once the basic concept of *rightness* is established, the finer distinctions follow or can be worked out in a quasi-deductive manner.

It may be worthwhile (that is, productive of positive value) before we leave the conception of *right* to consider for a moment its relations to *instrumental value.* Actual positive instrumental value, we may recall, is constituted when an organism reacts with pleasantness to an object as *being thought to be* an intermediate means to some consequent object "having" positive terminal value. Potential instrumental value is constituted when there exists the potentiality (that is, probability beyond a certain practical constant) of actual instrumental value, *if* the organism responds to the object. A right act for an organism is, roughly, one which probably will lead to positive terminal value—which is to say, the act has positive utility.

Now since instrumental value requires both the *belief* that an object is an intermediate means, and so on, and a positive *affective reaction* to that belief, the following four relationships are apparently possible:

(1) The organism knows the act is right and feels pleasure in it in consequence. The act "has" for the organism actual positive instrumental value.

(2) The organism knows the act is right but feels no consequent pleasure in it. (Is this possible? It is frequent. *Video meliora proboque, deteriora sequor.* The consequences of the right act are perhaps too remote and pale to reflect back on the intermediate means; or the organism is too agitated emotionally to feel any positive affectivity at all. At any rate this necessary ingredient is missing.) The act "has" for the organism only actual indifference (or it may be, negative) instrumental value, whatever its utility.

(3) The organism does not know the act is right but nevertheless feels pleasure in it. The act does not "have" actual positive instrumental value (not, at any rate, with respect to those consequences in which its rightness is grounded), but it "has" actual positive

terminal value (for the organism is apparently deriving immediate positive affectivity from its stimulation).

(4) The organism does not know the act is right and feels no pleasure in it. The act "has" for the organism indifference or negative terminal value.

But *potential* instrumental value is independent of and consistent with any of these situations. If the organism is the members of a society collectively, we can say with some assurance that any type of action which is in fact right is endowed thereby with potential positive instrumental value, for collectively it is quite probable that that conduct which leads to happy consequences will, if tried, come to be valued in that function. For an individual organism the matter is more doubtful. Normally it may be expected that what is right, for the individual or for society, will come, if reacted to, to be valued as a means, and hence to "have" for the individual potential positive instrumental value. It may be expected because by and large what is right is adapted to promote the well-being of the majority of individuals of any society. But there are many exceptions. Thus for the habitual criminal the act, say, of behaving honestly, though right even for him (if practiced it would probably lead to his own happiness), "has" no actual and little potential positive instrumental value, for he finds no pleasure in honest behavior and, because of his character, is never likely to. Such being his "scale of values," he must be put out of the way of interfering with the operation of society's scale.

It may appear somewhat paradoxical that an object can be *right* for an organism and yet "have" no actual and small potential *value* for that same organism. (We shall subsequently come to consider a similar and in fact related apparent paradox respecting economic *value* and economic *utility*.) We are inclined in this case to think there must be in this a conflict of values, which, when only one organism is concerned, would be an inconsistency. But this is not really the case, for rightness, though constituted by the probability of value, is not itself a value. An organism may react toward it in any affective mode. Though *rightness* is by definition *valuable,* it need not necessarily be *positively valued.*

It will be recalled that potential direct positive instrumental value was symbolized as follows:

(t) $p_1x \cdot p_2y(z) \cdot p_3(x\text{"}z\text{"}P) \cdot p_4[xy(z) \supset P]$

In this present discussion we are assuming that y (the act) is in fact an intermediate means to the last means z and that for the organism x, z "has" potential terminal value (that is, $xz \supset P$). But still the right act, y(z), may not "have" potential instrumental value for x, for two reasons: he may not feel pleasantness in z or its symbolical representation "z" (that is, z may not "have" for x actual indirect positive terminal value) and hence may feel no pleasantness in the intermediate means, y(z), in fact leading to it; or, even if he does anticipate with pleasantness the last means z, still by some quirk of character, or by z's remoteness, adverse emotional associations, and so on, he may be unable to sense any pleasantness in reacting to the act, y(z), which leads to it.

The apparent paradox that *right* and *instrumental value* are not strictly coordinate arises also, in an analogous manner, with respect to the adjective *good,* to *economic value* (as we mentioned), and in general to any concept which depends upon instrumental value. For it is always possible to have an intermediate means which as a matter of fact leads to a last means pleasing to an organism without the organism being occasioned pleasantness by that intermediate means. This is another application of the general principle, mentioned in the early pages of Chapter 3, of the mutual independence of *value* and *utility.*

VI. The substantive, *right,* though identical in orthography and etymology with the adjectival form, has actually in its ethical significance no immediate connexion. To assert *a right* is to assert a claim to others' acquiescence or cooperation in certain actions. But on what does such a claim rest? Not on favor, sympathy, or kindness; when a person asserts a *right* to do such and such he is not requesting the kind indulgence of his fellows, but is postulating the existence of a state of affairs independent of their immediate affective reactions. But what sort of a state of affairs? First, I should suggest, social. Rights exist only in a social complex. Second, a state of affairs which permits of alternatives. If there is no possibility of denial by others, then, save in some Pickwickian sense, there is no "claim" and hence no right. In this case a man simply has the *power* to do what he wishes. Or, in the opposite case, he simply has *not* the *power.*

These two conditions exclude the conception of *a right* from entering into man's relations with nature. Nature does not change her course either to help or to hinder us; we cannot claim her acquiescence or cooperation except in so far as we compel it. Nature acknowledges none of our rights; neither does she deny any. Nor will nature assist in enforcing our rights against others, nor others' against us. Nature is, so far as observation has ever provided evidence, completely neutral with respect to man's rights, whether toward his fellows or toward her. The long historical search for "natural rights" was, therefore, altogether a wild-goose chase. The ancient Sophists must be adjudged correct in their pronouncement that rights are grounded not in Nature but in Convention (though I have no wish at present to enter into a discussion concerning their unduly narrow interpretation of the latter term nor of the inadmissibility of their sharp, almost metaphysical, dichotomy between the two).

Or at most we may call those rights *natural* which are so grounded in the relatively permanent traits of human nature and conditions of the physical and social environment that they have been for an indefinitely long period accepted as arrangements generally productive of positive value. Upon examination it will be found that there are few rights, even those which in this age we take most for granted, which can be called *natural* even in this sense. Perhaps in the Anglo-Saxon tradition a relatively high degree of personal freedom may be thought of as a natural right. No harm will have been done unless at the same time it is attempted (as historically has been the case) to put a construction upon the adjective "natural" which implies that the right exists in or is supported by the structure of the external order of nature or the fiat of supernatural power. Such claims may have temporary forensic or polemical advantages; intellectually they but confuse the issue and in the long run weaken the claimant's case. No, as philosophers, concerned to win *our* case only by the truth of our arguments, it is incumbent upon us to recognize that, situated as man is in the midst of a natural environment totally indifferent to (unaffected by) his weal or woe, man has only such rights as he seeks, establishes, and maintains with and among his fellows. Rights are neither given nor discovered; they are constructed. They are important constructs within the

artificial complex called civilization, being in their nature more or less stable and mutually accepted means to the pursuit of happiness.

The third character of the state of affairs whose existence is postulated in the assertion of a right is that the choice of one or more of the alternative responses open to the respondents (those affected by the doer's acts) will probably entail sanctions productive of negative affectivity. Sanctions whence originating? Not, as we have just seen, from nature external to man. Not from any supernatural source, as has been believed by the majority of men throughout recorded history (the latter fact being a circumstance, not favorable to, but telling strongly against the view thus upheld). This *consensus gentium* we reject because of the lack of any acceptable independent evidence either for the existence of any supernatural order or for the existence of any sanctions originating in any alleged supernatural order. (The age now appears happily past when earthquakes, destruction by lightning, loathsome diseases, insanity, and the like misfortunes could be adduced, with any expectation of rational acceptance, as evidences of the fulmination of a divine source of moral sanctions.) If neither the natural nor an alleged supernatural order is the source of sanctions, then it must be society itself.

Fourth, as in all notions derivative from a relativistic axiology, the notion of *a right* is relative: to the claimant, to the respondents, to the containing social medium, and to the time reference. What is a right for one may not be a right for another (as for civilian and soldier in the matter of dress). What is a right with respect to one set of respondents may not be a right with respect to another set (as to adolescents and adults in the matter of compelling school attendance). What is a right in one society may be the opposite in another (this thesis has received monumental documentation in such works as Westermarck's *Origin and Development of the Moral Ideas*). What is a right at one time may not be so at another (as the right to kill before and during a state of war).

The four points just discussed have now brought us within sight of the full meaning of the substantive, *right*. To assert the existence of *a right* (1) for a certain person, (2) with respect to certain other persons, (3) in a particular social organization, and (4) referring to a more or less definite time, is to assert that if the person acts in a certain manner, there are open to the other persons at least the

two general alternative modes of response, (a) acquiescence or cooperation and (b) opposition; and that the existent structure of society is such that if (a) is chosen, a consequent reaction will ensue from society in general or from designated representatives which will occasion in the respondents positive or at least indifference affectivity, while if (b) is chosen, a consequent reaction will ensue which will occasion in the respondents negative affectivity. Thus when A asserts to B, "I have a right to walk down this street," he is asserting (in brief): B can either allow him to pass or physically hinder him; if the former, society (perhaps in the person of "that policeman over there") will approve or at least remain indifferent; if the latter, society will react to B's behavior in a manner which will cause B some unpleasantness (in this case, perhaps by being haled away for "disturbing the peace"). Similarly the assertion of a right may be conjugated through the other persons: "You have a right . . . ," "He has a right . . ."; and tenses: "Roman citizens had the right . . . ," "When he is twenty-one he will have the right. . . ."

The negative cases are parallel. "You have no right . . ." means either that society will offer no sanctions against those who choose to hinder you or that society itself will raise sanctions against *you* if you behave in the manner in question. An example of the first meaning is the act of attempting to collect a gambling debt; of the second, any act criminal by statute.

The nature of the various types of rights—moral, legal, political, and so on—is fairly evident. Each qualification makes reference to the nature of the sanctions expected. Thus, "I admit I have no legal right to do this, but I have a moral right" asserts that though no sanctions codified in law may be expected to be visited upon those who oppose me, yet society will support my action by moral disapproval of those not acquiescing in it.

If this analysis be generally correct, then it is evident that without sanctions of some sort an assertion of a substantive right is idle, and, in fact, false. The proposition "I have a right to seek my happiness in whatever way I please" is false because it is not a probable fact that this or any other society would impose its sanctions on those who were moved to oppose my seeking happiness in certain ways. (If the speaker has in mind in this example something like,

". . . because if anyone tries to hinder me, I personally will shoot him dead," he is not asserting a *right* at all but simply the unilateral intention to employ force. In a similar manner many historical assertions of the possession of rights of various sorts have been little if anything more than attempts to give an emotional and honorific gloss to an expression of desire and an intention of carrying out that desire by force. Likewise many or even most assertions of rights between nations have been idle, if not false, since there has usually been no embracing society, nor even a recognized third party, to provide a grounding for the implied sanctions. Hence the usual and obviously contradictory appeals to a right supernaturally supported —"In God we trust," "Gott mit uns," "Dieu et mon droit," and so on. The era is dawning, we may hope—foreshadowed by the Stoic doctrine of the world community—when nations may meaningfully assert a right to certain policies, the implied moral, if not legal, sanctions being grounded in the affective consensus of mankind.) Thus again, to call the "self-evident truths" set forth in the American Declaration of Independence *rights* was false, for no sanctions existed to support them; (they are, perhaps, to be thought of as a program of future rights deemed desirable of establishment). On the other hand, the first ten amendments to the United States Constitution may with propriety be referred to as the Bill of Rights since the privileges and immunities thereby conferred upon the citizens are supported implicitly by the full force of the federal government.

In the preceding sentence the word *privilege* has been employed. A privilege is often contrasted with a right. The difference, however, is not great. A privilege, we may say, is as the etymology of the word implies a right specially conferred or confined to a select group or extended but for a limited period; or, on the other hand, a right might be spoken of as a general privilege.

Rights are apt to be taken for granted and assumed to have a quasi-metaphysical status of their own. This, however natural from the influence of their long-term stability, is a mistake. Both rights and privileges are, as we have suggested, matters of "convention," created in society and requiring actual or potential force for their sustenance. Examples of the tendency to objectify, or even apotheosize, long-continued rights are numerous and of easy exhibition. In

the Anglo-Saxon countries, at least, it is assumed almost without question that parents have the *right* to prejudice the minds of their children during their helpless formative years with whatever religious dogmas the parents happen to favor (the result, of course, of prejudice by *their* parents) and furthermore that this right is either God-given or at least "in the nature of things." That such a right does exist, complete with implicit sanctions, in the Anglo-Saxon social *mores* is indubitable; but as anthropology, sociology, and history amply demonstrate, there is not the slightest rational evidence that this existent right is other than a custom determined by natural historical antecedents and tacitly agreed to, partly from a vague conviction that it conduces to the happiness of society and partly from sheer intellectual and emotional inertia. It would perhaps strike the majority of persons brought up in the Anglo-Saxon tradition as both surprising and incomprehensible that anyone should wish to call this right into question. Again, possession of private property is considered an almost sacred right. Actually it is a general privilege, tacitly agreed to in our particular form of society. Other societies have held the possession of private property a wrong.

This brings us conveniently to the next point. The looseness of connexion between the substantive and the adjective is indicated by this fact: that it is always a significant question to ask whether in any particular instance *a right* is *right*. A right, as we have seen, is a certain kind of social arrangement or means to the accomplishment of a purpose, and the adjective, right, connotes the actual probability that any given means will lead to an actualization of positive value. Therefore we may always raise the question as to whether in fact any particular right conduces to positive value—for this or that organism. In the preceding example we may ask whether the existent right of parents to "educate" (that is, prejudice) their young children as they see fit is actually right or not—meaning, does it conduce to the parents' happiness? To the children's? To the general happiness of society? Or even, to the world's welfare? (The author would allow a positive answer to the first, but be obliged to return a qualified negative to the other three queries.)

It is evident, then, as regards the various *rights* of mankind—past, present, and proposed—that none is necessarily *right* (for so-

ciety or for any other given organism). Each must be justified on its axiological merits. The reader will now see, if he did not before, that a question such as, "What rights have parents to mold the minds of their children?" forebodes an ambiguity in the understanding of it—whether the inquirer seeks the legal or moral basis for an existent fact, or whether he is asking for its ethical justification. Many an existing *right* (substantive) is not *right* (adjective); many a legal right is neither a moral right nor morally right; many a moral right has not been codified into a legal right; many courses of conduct which are right (for society) have not been recognized as moral *or* legal rights; and so forth—confusion being heaped on confusion in popular pronouncements on these topics. Thus a man will say, "I have a right to do this"; but perhaps he has not *a right* to do it, although it may well be *right,* for himself or for society or both, that he should do it. Or another may assert, "You have no right to do that," whereas in actuality the person addressed does have *a right* to do what he is doing, but truly enough it is not *right* (for society) that he should exercise *the right* (which latter is very likely what the speaker meant by his assertion). Nor is any right sacrosanct; every right, however long accepted, is open to the modifying effects of man's desire and efforts rationally to improve his lot.

Such being the nature of *a right,* this section of our inquiry may conclude with our pointing out once again that a proposition embodying this concept, as (allegedly) any others in the hedonistic theory of value, is perfectly well open to objective determination of truth or falsity. It is, to repeat, not eccentric to the mass of matter-of-fact propositions in use simply because of the presence in it of a value term—as has been maintained, oddly enough, both by thoroughgoing scientists (Henri Poincaré, to mention one) anxious not to become entangled in axiological matters and by irrationalists equally anxious to preserve the realm of values as a domain in which their obscurantist activities may be carried on without the admissibility of challenge. The implied dualism cannot for a moment be rationally upheld. The proposition "x has a right to do such and such" is as open to objective verification or disproof as would be "The codified law enjoins (urges, admonishes, permits, forbids) x to do such and such." So with "x has no right to do such

and such." Due regard must be had, of course, to the validating conditions before stated. Depending on the emphasis placed on one or more of these conditions, it may often be found that the existence of a right can fairly equally be supported or denied, or that from one point of view it is sustained, from another not. So, for instance, the proposition, "Gaius Julius Caesar had in January of 49 B.C. the right to cross the stream called Rubicon"; from the strictly legalistic point of view, and certainly from that of the Senatorial party, he had not; from that of the general political temper of the times and the sentiments of the interested inhabitants of the Italian peninsula, perhaps he had. In either case the proposition is rationally disputable—and in fact it remains in reputable dispute among historians. Whether Caesar performed a *right action* in thus defying the Roman Senate is a different, but, as we have seen, no less determinable question, a point of view being assumed.

VII. The general opposite of *right* is, of course, *wrong*. And the term *wrong* may also be divided as to its adjectival and its substantive usages, as, "You are adopting the wrong course of action," or, "You will be doing him a wrong." However, *a wrong* is by no means the opposite of *a right;* the opposite of the latter is *no right* and the opposite of *a wrong* is something like *justice, a kindness, a favor,* or *a benefit.*

The meanings of the adjective, *wrong,* or the adverb, *wrongly,* should be fairly clear by reason of their close relations with right. Broadly, certain behavior is wrong for some organism when it is probable in fact that it will occasion aggregate negative value (or a lesser degree of value than might be expected from a feasible alternative) for that organism. Customary linguistic usage ordinarily restricts *wrong* to conduct which affects the happiness of other organisms than the doer. A distinction is generally recognized between, "It would be ill-advised of you to do that; you will only hurt yourself," and "It would be wrong of you to do that; you will endanger the happiness of your wife and children." The distinction, which we have touched on before, between actions which affect others and actions which are merely self-affective (there being all degrees of each), is genuine; but generically the two species are identical—actions which are likely to be productive of negative value. On a practical level the distinction is useful, necessary even;

on the more abstract level, with which we are concerned, the underlying unity is the important aspect.

It would probably be superfluous to insist at this point on the relativity of the concept of *wrong* in ways analogous to those already discussed: to organism, to time, to alternative courses of action, and so on. To counter possible objections, however, it might be well once more to point out that a philosophic, if not a popular, belief in a relativistic basis for these ethical categories in no way weakens the practical force and serviceability of the social moral structure built upon them. Nor does the doctrine of the relativity of its own categories class hedonism among the socially dangerous ethical theories. On the contrary, in so far as it is incumbent upon an ethical theory to persuade men's conduct on any rational grounds, hedonism is far less socially dangerous than the more idealistic theories. It is futile to attempt to *persuade* the common man that he ought to base his conduct on imitation of the Idea of the Good, moral intuition, the categorical imperative, the universal Will, and the like, if he cannot understand those pretentious concepts or if, understanding them in some way or other, he simply does not agree with them. One can well imagine a hardened sinner—or even a puzzled normal individual—saying, "The categorical imperative enjoins me to do this? . . . So what?" But on the other hand the appeal which hedonism makes to self-interest, once it is correctly understood, is naturally persuasive to any man. The argument, "You ought to do thus, because you will be happier in so doing . . . for these factual reasons . . . ," can be understood and believed by any intelligent individual—at least by him who, in Plato's phrase, knows how to wear his cloak like a gentleman. And in so far as reasoning can affect popular conduct, virtue *is* knowledge—just of this sort. When it is a question of persuading men to any practical measure, no matter what the ethical principles involved may be pretended to be, it will always be found that the persuasion itself is based on, and derives its force from, hedonistic considerations. In short, a hedonistic axiology may be socially dangerous if it is adopted without being understood (which is why, as we have said before, the study of axiology must remain an aristocratic pursuit). But an idealistic, an intuitionistic, or an absolutistic axiology

is socially dangerous—history bears witness!—whether it is "understood" or not.

Hedonism, in its practical results, comes out pretty much in the same place as that aspired to by most of its more precious historical rivals. Though in it right and wrong are held relative to men and the environment they live in, still man's nature and the traits of his environment are of such constancy over such long periods of time (far beyond the span of any individual's life) that the moral standards they determine are as immutable as could reasonably be desired. To assert for them an absolute, metaphysically grounded immutability is in effect to assert the physical immutability of both the human organism and the terrestrial environment; if the latter is evidently false, the former may be taken to be so too. And the sorriest effect of this unwarranted assertion is to remove morals from the reach of inquiry and improvement and to condemn the discipline instead to sterile ossification and social obstruction.

Neither should it be necessary once more to insist that the predication of wrongness to an action is as open to scientific verification as any other judgment concerning a matter of fact. The basic question at issue is simply whether or not it is probable—the nature of the action, the organism, and the environment being taken into account—that negative affectivity will be engendered in the organism.

Here another objection—the negative form of one we have had occasion previously to discuss—may be allowed a brief answer. It has been said that such an explanation of the meaning of *wrong* cannot be correct, for if we but suppose (or take, for actual exemplars are plenty) a man with no conscience, sympathy, or capacity for remorse, none of his acts could be called wrong, since with such a callous character he would not be likely to experience any negative value. The objection is founded on a double mistake. First, in any sort of social life which has thus far been exemplified in history, it has been, is, and will be probable that the crass doer of hurt to others will himself be hurt (experience negative value) no matter how tough his moral hide. Secondly, even if in some extraordinary instance an individual is able to commit crimes with fair impunity (say a Tissaphernes, an Elagabalus, a Tomás de Torque-

mada), his acts may still be labeled *wrong* even in no other view than his own personal one, since by his conduct he necessarily limits and impoverishes his satisfactions, cuts himself off from normal human intercourse, blights the development of his own human potentialities in which is found the natural road to happiness, and prepares for himself a life of ceaseless suspicion and uneasiness—the net effect of his criminality being so small a measure of positive value, if any at all, that by comparison with that to be expected from his choosing the alternative of an upright, or at least normal, life it may well be called negative. (This judgment of the exiguous satisfaction to be derived from a life of unchecked vileness may be confirmed in the reader's mind if he will but consider the affective consequences to themselves had the three odious individuals named above chosen the parts of worthier characters—Tissaphernes such life as that, say, of the manly and incorruptible Timoleon; Elagabalus, of that prince of good fellows, Horace; and Torquemada, of the gentle Francis of Assisi.) Such is the case with the "pleasures" of the vulgar rich; positive values they may be in the barely literal sense, but the rewards of a life confirmed in vulgarity through unlimited pecuniary resources, and becoming in the course of years more and more immune to any outside influences toward melioration, are so greatly poorer than what might have been expected that they may well be regarded as absolutely negative, for certainly they do lie more in the direction of the negative extreme on the hedonic spectrum. Thirdly, the word *wrong,* used without qualification, must be taken in the sense of *wrong for society* or *wrong on the average;* the fact that one or two individuals might achieve a modicum of positive value by behavior harmful to their fellow men in nowise negates the principle that behavior which ordinarily would produce negative value to the behaver is to be classed as *wrong* in the general ethical sense. *De minimis non curat lex;* to be useful, an ethical law must be based on the average expectation of the class for whose use it is enunciated and the average effects of the type of behavior with which it is concerned. Random apparent exceptions no more disprove scientifically supported ethical rules than Boyle's law is disproved by the apparently perverse behavior of random individual molecules, or than any other statistically grounded principle by the behavior of stray ele-

ments. To accept such a disproof is to be the victim of the fallacy of composition.

Now before proceeding to the concluding group of ethical conceptions to be considered, it should perhaps be pointed out that those just defined are applicable, with obvious modifications, to the non-human organic realm. The realization of this fact is important in view of the claim of hedonism to being the only one of the classic theories of value which subsumes all organic behavior under the same simple postulates. Applicability to the non-human realm may perhaps best be exhibited by a series of imaginary exemplifications of the terms.

1. *Good.*

(a) "Domestic sheep are not good for tigers." That is, under ordinary circumstances the interest which human beings take in the preservation of their flocks makes probable a balance of negative value for any tiger which selects sheep as objects of sustenance. (Equally well, considering feline nature, it may be asserted, "Tigers are not good for sheep.")

(b) "Meat is, however, for tigers part of *the good.*" That is, the feline organism being what it is, a tiger (we may infer) experiences a high degree of positive affectivity in devouring raw meat, and further, a tiger is not likely to realize his full potentialities for happy tigerhood unless he secures such food. More precisely, it is not the meat itself which is part of the tiger's good, but the potentiality of the meat, if eaten, to occasion immediate and remote terminal satisfactions. Thus again, "*The good* for an amoeba consists in lolling unmolested in warm water, finding plenty of succulent smaller organisms to ingest, and reproducing itself from time to time": that is to say, these are the conditions in which the type amoeba finds the maximum positive value of which its simple nature is capable. If we desire a finer distinction, we may say that the capacity of meat to please a tiger is part of his *potential good,* whereas the pleasantness actually experienced in the eating is his *actual good*—what was but potential being thus actualized. Similarly for the humble amoeba.

2. *Bad.*

(a) "Sheep meat may be good for tigers, but for tigers to make a

habit of eating sheep is bad." That is, sheep meat being the particular arrangement of molecules it is and tigers being the carnivores they are, the actual consumption of the former by the latter ordinarily produces a high degree of satisfaction; but, as in the last examples, men finding negative value in having their sheep eaten by tigers, for a tiger to contract that dangerous habit is likely to result in his existence being made both unquiet and short.

(b) "By and large, from the tigricentric viewpoint, mankind is part of the bad." The meaning is evident.

3. *Evil.*

(a) "In the long run a tiger's evil deeds will return to haunt him." That is, (1) if a tiger persists in molesting sheep—behavior evil from man's viewpoint—he will sooner or later be made to suffer for his ill-advised choice of a meat supply; (2) if a tiger is pugnacious, treacherous, mean, and nasty to his fellow felines—behavior evil from their point of view—he is likely to get hurt himself, directly or indirectly. If the last statement is contrary to fact—if a tiger's happiness *is* not affected by his snarling conduct toward his fellows—the meaning of *evil* is not thereby changed; this would simply disprove the truth of the assertion in (a) above, taken in this particular sense.

(b) As in 2(*b*) above, "For tigers, man is part of the evil in life." The meaning is evident, but the implications are far-reaching. Thus (as Xenophanes might have suggested) if certain tigers were to reach a sufficient level of intellectual attainment, might they not, after having been prompted by their emotional reaction to the hurts of the terrestrial environment to postulate an all-wise, all-(tiger) loving, omnipotent, and omniscient Deity, in whose living image Adam-tiger had been created—might not these reflective felines then ask themselves why so worshipful a god should permit such vile, repulsive, pestilent, and mephitic vermin as mankind to exist, nay, to flourish and inexorably to exterminate tigerdom from the fields and forests of the earth? And so they of the black and orange striped flanks would have enmeshed themselves, by their little learning, in their own insoluble Problem of Evil.

4. *Indifferent.*

(a) "Books are indifferent to tigers." That is, a tiger coming upon a copy of *Travels in Arabia Deserta* lying on a jungle pathway might

be expected to examine it visually and olfactorily with complete indifference—that is, with the occurrence neither of positive nor of negative affectivity.

(b) "For tigers, the existence of books is a part of the indifferent." Meaning evident.

5. *Right* (adjective).

(a) "It is not good for tigers to attack sheep, but if they feel they must do so through lack of other sustenance, the right time to do it is either just before dawn or in the evening twilight." That is, the most probable intermediate means to the actualization of the last means of sheep-eating is, for a desperate tiger, dawn or dusk attack. The behavior is *right for* the tiger; it is of course not at all *right for* the owner of the flock—quite the contrary—or for human society in general, the organism most commonly referred to as the standard moral reference point, the fulcrum of rightness.

6. *Right* (substantive).

(a) Since the condition of an embracing social organization is lacking, the substantive appears to be applicable to tigers in only a few secondary senses. Tigers in general have no rights; no other organisms are influenced by the threat of social sanctions to acquiesce in or cooperate with any of a tiger's actions. If another organism does so, it is simply because the tiger itself threatens sanctions in the form of physical force. Not even the species tiger seems interested in its individual members; this being so, the individual animal can gain no rights from the support of its fellows.

But a few examples will show that the conception of substantive *right* is not wholly inapplicable to creatures other than man. Thus of a litter of tiger cubs it might be said, "These cubs have the right to bask unmolested in the sun." Such as their right is, it is based squarely on the readiness of their tigress mother to retaliate on all disturbers of their somnolence. Perhaps in this case it might be better to assert that a tigress' cubs are *privileged* to bask at their leisure in the sun. The lowly amoeba seems neither to have a right nor a privilege; he simply basks at his own feeble risk.

Or again we may say that a tiger in a zoo has a right to be cared for, fed, and sheltered. If so, the statement only expresses the probability that society, because of the expense it is put to in supporting zoos and because of its immediate sympathy with helpless ani-

mals, would impose unpleasant sanctions against those responsible should the tiger fail to receive these reasonable amenities.

7. *Wrong.*

(a) "High noon would be the wrong time of day for a tiger to undertake sheep-snatching" (tigerdom's viewpoint). "It is wrong for tigers to snatch sheep at all, and the owners have a right to kill any they catch trying it" (*Homo sapiens'* viewpoint). "Since we have never harmed them, the tigers do us a wrong to snatch of our number and eat" (sheep's viewpoint). "Sheep-snatching by tigers is ethically neither right nor wrong; it is simply an existent fact" (so far as we may infer from its indifference, the universe's viewpoint). The meaning of *wrong* as employed in each of these propositions should be sufficiently clear from our previous discussion of the term, so that further elaboration and drawing of implications can be dispensed with as redundant.

Here, then, we may conclude the demonstration that the secondary conceptions of ethics thus far dealt with are in some senses applicable to non-human organisms and pass on to others which possibly are not. The reader, who by now is doubtless tired of tigers, will of course realize that the preceding examples were so chosen as to be readily comparable and that, with suitable modifications in the wording, logically and axiologically similar propositions could meaningfully be applied to any other sentient organisms.

VIII. The first point to notice in examining into the essential meaning of the concept *duty* is that, like the substantive *right,* properly it is applicable only to social situations of one sort or another. The use of the term implies that certain aspects of the total behavior pattern of an individual are of affective interest to his fellows. There can be no duty with respect to types of behavior which are and always have been of consequence only to the doer, and not to other persons or to a supposed Deity. This at once distinguishes *duty* from *ought,* for whereas it is meaningful to say, "You ought to see such and such a play," or colloquially, "You owe it to yourself to see . . . ," one cannot in ordinary circumstances assert, "It is your duty to see. . . ." This is because the happiness or welfare of no group hangs upon the outcome of the individual's choice of seeing or not seeing a particular theatrical work.

(True, some other individual's affective interests may be involved —I may badly want my friend to see this play and my feelings will be hurt if he does not—but rarely if ever can the merely personal interests of one individual impose a duty upon another. If it were that I had given him a ticket with the tacit understanding that he would attend, then he may in a mild way be said to be under obligation to do so; but in this case his duty arises not because of my personal wish, but because his acceptance of the ticket under these conditions created a moral contract and society has seen fit to make it every individual's duty to abide by contracts freely entered into by imposing sanctions, express or implied, on their deliberate non-observance. In a similar way it may be said that a child has a duty to obey his parent; but that duty rests not on the parent's affective reactions but on the approval and support of society, which thinks it well (conducive to its own positive value) to confer authority upon parents to compel their children in certain respects. So might also the commands of a tyrant perhaps be construed as imposing a duty of obedience, but in reality only because and in so far as he is backed up by the force of the state power.) On the other hand, if a certain person is under legal contract to a newspaper as a drama critic and if society approves generally of such contracts, then it may quite properly be said to this person, "It is your duty to see such and such a play." But then the example supports our thesis, for here the affective interests of a group are implicated in the critic's behavior. So of course with any number of commoner instances; for example, "It is his duty to support his wife and children." In this case society is interested in (derives P or U from) the act of support or non-support. It might also have been said, "He ought to support. . . ." This shows that *ought* is the broader term, covering (indiscriminately, unless further specified) cases both of veritable duty and mere personal advisability.

In fact the typical proposition expressing *duty* is but a particular form of the general *ought* proposition—"*If* you do (or do not do) thus, *then* you will risk U—in this case through social or (suppositive) divine reaction." That is, to assert duty is to assert an admonitory *ought* where one or both alternatives imply social or divine sanctions. "If you do (or do not do) this, then society (or Zeus, Allah, Siva, Osiris, Mumbo Jumbo) will be displeased and

you will probably be made to feel its (or his) displeasure; thus you will experience negative value as a result of your dereliction. Therefore, you *ought* (or *ought not*) to do this—nay more, it is your *duty* to do (or not to do) this."

Obviously the nature of duties varies with the social medium in which the organism finds itself. A soldier has duties which are nonexistent for the private citizen. That is, it can truthfully be asserted that if the soldier does not do certain things, he thereby creates the probability of personal negative value through the reaction of his special "society"; whereas it cannot be so asserted of the citizen with respect to the same acts.

The implied sanctions which are necessary to create a case of *duty* are of at least three kinds. (1) There are the more or less immediate sanctions, inherent in the legal or moral arrangements of society, such that the transgressor is specifically chastised and the exemplar (usually much less specifically) rewarded. An example of a legal duty: to pay one's contracted debts, under penalty of elaborately codified social sanctions; an example of a moral duty: to support one's aged and penurious father, under penalty of uncodified expressions of social disapproval.

(2) There are the more remote sanctions, such that their existence renders probable woe or weal to the doer of certain deeds apart from the existence or non-existence of immediate social sanctions. Thus it may be said to be the duty of any individual to refrain from acts which, though probably to be attended by no social sanctions, conduce probably to the general deterioration of society itself—a condition which is likely to entail, *communibus annis,* an increase of negative value to the doer. That is, for example, it is my duty to refrain from stealing this purse which lies under my hand, even though it be in this instance probable that I should never suffer any social sanctions, because such an act tends to a weakening of the structure of society and in the long run every weakening of society increases my chances of experiencing negative value and decreases my chances of realizing those manifold and fragile positive values in which consists my personal happiness. Besides, of course, any act is habit-forming, and hence this also increases the probability that I will on some other occasion suffer the immediate sanctions of society.

If this formulation of an instance of duty seems awkward, it may in part be ascribed to having been presented in an individual form. Few duties, however, apply to individuals as such. Like *right, duty* is a conception usually used of averages; it is the duty of *men in general* to refrain from even undetectable theft, for if *men in general* persistently indulged in such a propensity, society would be debilitated and *men in general* would thereby be the losers in aggregate affectivity. This formulation would, however, have had the difficulty of raising the further question—why should it be the duty of the *individual* to abide by the duty of *men in general?* The answer has been given: because so doing increases his own probability of happiness.

(3) There are what may be called personal sanctions. In a number of instances (some of great interest and importance) in which it may be validly asserted that a man is acting under the influence of duty, the sanctions associated with dereliction appear to have no evident connexion with social disapproval—sometimes, indeed, quite the contrary. A man may, for instance, feel impelled to brush his teeth six times daily—before and after every meal—through a sense of "duty," though neither society nor any other individual takes the least interest in the matter. Or a man may believe it his "duty" deliberately to oppose what society holds to be his duty—as one who objects on principle to rendering military service. If these *are* genuinely cases of duty, then the sanctions which support them must be the negative values which would be felt by the individuals in behaving contrary to certain of their own persistent motives (internal stimuli, sets). One man brushes his teeth hexhemerally because he anticipates that he would feel greater displeasure if he did not; the other defies conscription because for him there is more potential negative value in disregarding his own pacifistic set than in anything the state can impose upon him as a deterrent. But under the definition of *duty* here being suggested, these sets must have had originally some extra-personal grounding or the individuals cannot be said to be actuated by duty but only by idiosyncrasy. Thus if the one was brought up from earliest childhood to believe that frequent tooth-brushing was a duty, with definite sanctions attached to its neglect, and if the other had been taught that Divine Providence forbids, with at least implied sanctions, the taking of

human life under any circumstances, they might both be said to be actuated by a sense of duty even when the original conditions had ceased to exist—for example, when the one's parents had passed away and the other's belief in Divine Providence had been enlightened into skepticism—and both were now influenced solely by lifelong habit.

However, the validity of the third type of duty-sanction just suggested is simply a matter of linguistic convenience, and if it were felt preferable to confine instances of duty to those where actually existent social sanctions could be demonstrated as being probable, the implied definition of *duty* would be rendered so much the more simple. However, common usage would be violated, for certainly many acts are spoken of as being performed under the compulsion of duty where no sanctions, other than those arising from the organism's own structure, can be discerned.

Pending a more extended consideration of these matters at another time, let us say that the sanctions required to constitute a relationship of duty must be immediate social, remote social, or individual, but with an original social grounding. We reject the view that there can exist duty for any organism unless there is some probability of a reaction of negative value in case of violation.

It may be thought, however, that what has thus far been said is still not sufficient to define *duty*, regard being had to such instances as when society maintains, "This is your duty," and the individual replies, "I realize that society has imposed punitive sanctions on my not doing this; I will therefore do it, but I do not consider it to be my duty." Such cases seem to suggest that there might be conduct which is of affective interest to others and actually has sanctions attached to its performance or nonperformance but yet the arrangement might impose no duty of compliance or abstention upon certain individuals who declined to acquiesce. This type of case—of which history shows a plethora of instances—is a gratuitous confusion between *duty* and *right* (adjective). If the said relationships hold in actuality, then an instance of duty is certainly constituted. But whether the existent duty structure is right or not and from whose point of view is another question entirely. And this is the question really at issue in the dispute suggested above. Whether

or not a duty exists is usually readily determinable. Society may therefore be considered as affirming that the duty is *right for* society (and perhaps for the individual) and the individual as denying the same. The latter is in effect saying, "I will do this because that will cause me less unpleasantness than suffering the sanctions you have attached to my not doing it, but it is not *right for* society to have such an arrangement, that is, my act and those of others affected like me will probably result in an increase of negative value for the social organism."

Of course, according to our former definition, if the social arrangements in question make it in fact probable that, by conforming, the individual will procure more positive value for himself, then it is *right for* him that he should conform. He could not consistently say, "I judge it best for me in terms of value to conform, but it is not right (for me) that I should do so." If he did say that, he would but be expressing the existence of a strong motive not to conform, by which he anticipates in the event of conformity a large measure of negative value, that is, his "conscience" will hurt him. The way is similarly left open to account for the martyr's refusal to conform: it is *right for* the martyr to refuse to obey society's duty because his nature—his organic structure—is such that he in fact will probably find more positive value *for himself* in obedience to his "conscience" (abstract principles, "word of God," "inner light," devotion to the remote interests of man, and so on) than in obedience to society's dictates. This would not, however, affect his duty status with respect to society; the duty exists but he is declining to obey it. There is perhaps a conflict of duties—*duty* being definable by the three types of sanctions suggested above. He chooses to obey one conflicting duty rather than another.

The reader at this point may feel still an impatient impulse to throw in the question, "But in this welter of conflicting duties—society's, the ordinary individual's, the martyr's—whose conduct *is* right?" To that can be given only the oft-insisted upon rejoinder, "Right for whom?" If it were then said, "Right for society," the answer would not necessarily be, "The duty which society imposes," for, as it was the intention of this section to make clear, a societal duty may or may not be right *for* society. That would depend on

whether or not the arrangement in fact conduces to the increased actualization in society of positive value (or what throughout this essay is the same thing, the diminution of negative value).

These observations concerning the not necessarily parallel relationship between *duty* and adjectival *right* may naturally lead us next to consider that between *duty* and substantive *right*. As has often been noted by ethicists, these concepts are correlative and complementary; wherever there is a right there is a corresponding duty, and wherever a duty a right. Thus if it is the duty of an individual in a given society to act in a certain manner, then every other individual has the right to expect that he shall act in that manner; that is, if society's institutionalized or conventional arrangements are such that if a person does not act in a certain manner he will be made to feel negative sanctions, then any others who oppose that person in so acting will be supported by positive sanctions. (Of course, for reasons of social control, the rights of any one personally to oppose him who is not acting in accordance with duty are limited by statute or custom. An armed burglar breaks into my house. His duty is to refrain from such conduct. I have the right to expect that he should refrain and society will permit me to oppose him to the extent of shooting him dead on the spot. But it will not allow me the right to wait and shoot him a year later when I chance to meet him on the street. In that case society provides other positive sanctions supporting my right and negative sanctions opposing his defiance of duty—arrest, detention, trial, punishment, damages, restitution, deprivation of status, moral opprobrium, and so on.) Or again, if a certain individual in a given society has the right to act in a certain manner, then it is the duty of every other individual to allow him unmolested so to act; that is, if society's institutionalized or conventional arrangements are such that if a person acts in a certain manner he will be encouraged by society's positive sanctions (of positive approval, or at least indifference), then any others who oppose that person in so acting will be made to feel society's negative sanctions. As a privilege is a particular right, *duty* is similarly correlative to *privilege* also. An example has been cited which illustrates either or both of these correlations: if in a particular society the individual has the *right* (or *privilege)* to the use of private property, then it becomes the *duty* of every other indi-

vidual under the influence of that society to refrain from the use of that property (unless given the *privilege* by the owner, the *right* to do which is granted by society to every owner under limited conditions, in which case it is the *duty* of the borrower to restore the property at a specified time or upon demand).

From the respective meanings of the two terms the almost tautologous conclusion follows—that every organism has a right to do its duty. It by no means follows, however, that it is the duty of every organism to avail itself of its rights, for the one concept is permissive and the other mandatory. But to pursue these more subtle distinctions would astray us from our present purpose.

Since, as it appeared, non-human organisms can hardly be said to have rights, save in some special and doubtful senses, and since the correlative of a right is a duty and both depend on social sanctions, it can scarcely be said that non-human organisms have duties either. It seems somewhat extravagant to assert that it is the duty of tigers not to eat people, for if they do, punitive sanctions will be imposed. On the other hand, in so far as a zoo tiger has a right to be left undisturbed, it is the duty of all persons to leave him undisturbed. Or in the case of a dog, one would hardly say that, since it has the right to wander down the street as it will, it is the duty of all other dogs to leave it alone. Yet the owner of the dog has the right to walk it down the street, and it is the duty of all other owners not to let their canines interfere. The theoretical difference between these cases is neither obvious nor particularly important. However, we do appear to prefer to restrict the terms *duty* and *right* to situations where the individuals to whom apply both the positive and negative sanctions are by nature members of the social organism which applies the sanctions. Under this limitation of meaning few non-human societies exhibit any structures which would support the ascription of these concepts internally to their members. (The ants and the bees are possibly to be included among these few non-human societies having rights and duties.) In mixed societies—as in that which is constituted by tigers and men in the mutuality of their relations—such duties and rights as may be thought to exist seem to depend exclusively on the human element, and hence perhaps in reality to be between men and men, with tigers but as the occasion for their existence.

At any rate the important thing is not the question of verbal usage with regard to these terms, but the fact that *duty* also is derivative in its essential characteristics from *ought* and thus, more remotely, from the concept of *potential value*. To assert the existence of duty is, as we have seen, to assert the applicability (through social structures) of a particular "If . . . then . . ." proposition. This being so, the assertion of duty is likewise open to scientific verification or denial. If A asserts to B, "It is your duty to eat cucumbers," and B dissents, the difference of opinion need not be settled by an appeal to force (as historically has been the case with far too many almost equally frivolous issues). All that need be done is to determine as an ordinary matter of fact whether or not society would impose or support negative sanctions upon B in the event of his deliberate failure to eat cucumbers—that is, to determine whether or not the proposition, $xz \supset U$, is probable, the U being the consequence of social action. (Does the reader suppose that of course it could not be in this sense anyone's duty to eat cucumbers? He would be mistaken. If A is a father and B the son, society will support to a sufficient extent A's insistence on cucumber-eating so that it may veritably be said, "It *is* B's duty to eat cucumbers.")

Of course in most actual disputes about duties (as well as about rights) the parties really mean either (1) it is right (or wrong) that there should (or should not) be this particular duty, or (2) emotively, it is desired that this duty (or right) should (or should not) exist. That is, in everyday usage, "It is your duty," is commonly merely the equivalent of, "This is the right thing for you to do," or, "You ought to do this," or even, foolishly but with psychological naturalness, "I *want* you to do this." The latter, implied, statement is approximately the equivalent of, "The prospect of your not doing this occasions in my experience sensibly more negative affectivity than is occasioned by the prospect of your doing it," which is a far cry from the essential meaning of, "It is your duty . . . ," with its implications of objective social arrangements and consequent affectivity probabilities. The only importance for our present purposes, however, in touching upon these aberrations of usage is to suggest that they *are* aberrations and not, as the contemporary philosophical school to which we have several times alluded would

have it, indicative of the real (always emotive) basis beneath value expressions.

Just as we have seen reason to hold that no rights exist as between man and inorganic nature—nature acting in any manner toward man and man in any manner toward nature without there being in either case any exercise or violation of rights—so likewise is the concept of *duty* inapplicable. Man has no natural duty (although he may have a human duty) to behave in any particular way toward nature. This is the case, not because nature will not probably retaliate with unpleasant consequences upon certain human actions, but because such retaliation is determined by no sort of affectivity. A crowd of people are streaming through a narrow street; I suddenly throw a block across their passage; the crowd piles up; its members become confused, frustrated, uncomfortable, panicky, and in a short while explosively angry (a high degree of U is occurring in the contexture I have occasioned); the crowd breaks down the barrier, surges through, and proceeds to inflict a high degree of unpleasantness upon me, either directly or by legal means. The probability of such an outcome validates the proposition: it is part of everyone's civic duty not to interfere with the free ambulation of citizens upon public thoroughfares. But now a crowd of water molecules are streaming through a narrow watercourse; I suddenly throw a block across their passage; the dammed water piles up; its components, however, show no evidences of confusion, frustration, discomfort, panic, or anger (there is in fact no affective reaction at all); nevertheless, when a sufficient weight of water has accumulated, it breaks down my barrier, surges through, and proceeds to inflict a notable degree of unpleasantness upon me (if I or my goods are in the way) by direct means, not by legal, since water has no standing at law. The probability of such an outcome does not, however, validate any proposition affirmative of duty. No one, with reference solely to the relations between myself and nature, would assert that it is my *duty* not to dam streams in a flimsy manner; they would, however, assert that such conduct is inadvisable and that I *ought* not to do it.

Now what is the difference between these cases? Nothing, not even the objective predictability of their affective results, save that in the one case my discomfiture is the consequence of a preceding

affective reaction and in the other case it is not. And it is therefore the absence of this character which precludes our having any relations of duty toward nature.

Equally inadmissible is the notion that nature has any duties toward human beings or other organisms. Here a different link in the chain is missing. To certain of nature's acts we may attempt, under the stimulation of negative affectivity, to retaliate. The apparent fact, however, that inorganic nature is sensible of no affectivity makes such an attempt perfectly futile—Herodotus (VII.35) has preserved an egregious historical example in Xerxes' flagellation of the Hellespont for hindering the passage of his minions. Since nature, then, can be made to feel no compunction for the "evil" she does men (nor satisfaction for the "good"), it is insignificant to speak of nature as having any duties toward mankind or the other animals.

In the third place, nature neither supports nor opposes any duty arrangements existent in human society. To suppose so—to suppose that lightning will strike the undutiful or that the earth will gape to swallow the unrighteous—is to perpetrate one more variant of the "pathetic fallacy," to which mankind exhibits such a persistent addiction. No, the rain falls on the just and on the unjust alike; nature "cares" not whether a man does his man-made duty, nor whether any duty exists at all. The sanctions without which duty cannot be said to exist are never constituted by any probable behavior in the inorganic realm, however much men have at times thought so (because they wished to think so), as in the case of "natural rights" (rights guaranteed by nature), with the implication of a correlative "natural duty" (duty enforced by nature) of every man to respect those rights.

Duty, then, like *right,* is, to use once more the Sophistic terminology, a matter not of nature but of convention. I should firmly deny that this fact weakens in any way its theoretical validity, however much it might weaken it in the estimation of those whose conduct has never been based on any cerebration above the anthropomorphic level. For such (the majority), as before remarked, the "noble lie" may always be a necessary political, social, and religious expedient; for those whom the concatenation of all past events has permitted to rise above the level of emotional projection of hu-

man sentiments into the impassive universe—a candle giving light to the sun—the motivational influence of duty is no less felt because it is accepted as having a merely human foundation. Considerations justifying this belief that *duty,* humanly conceived, "has" no less of potential instrumental value may be reserved for exposition upon a more appropriate occasion.

The concept of *duty,* we shall then affirm, connotes in general those explicit and implicit relationships between man and his fellow men such that certain classes of behavior have attached to them the consequences of social reaction—usually of disapproval. The last inhabitant of earth could have no duties, save those he conceivably might set himself or suppose a sentient Deity to require of him.

Two further remarks may conclude this section of the present chapter. (1) Duty concerns means, not ends. This is evident since the sole end of conduct, according to hedonism, is pleasantness and the experience of pleasantness is necessarily a private occurrence. Other persons care not *that* we achieve positive value, but they do care *how* we achieve it, that is, by what means, for those means have secondary affective consequences, immediate or mediate, which may be negative for them. No man is required to feel pleasantness, but he may well be required by duty, *when* he seeks it, to seek and feel it in specified *ways.* Duty, then, is concerned with means, and with intermediate more often than with last means.

(2) Duty so often involves an opposition between near and remote satisfactions that this character is commonly believed, especially by the ascetically inclined, to represent an essential component of the concept. It is also commonly regarded as a characteristic of duty that it compels a man ordinarily to forego a greater satisfaction and accept a less. That is, duty is thought of as the forced choice of an unpleasant alternative. Neither of these opinions is correct. The nature of duty is as we have stated it; these two characteristics are fortuitous—they may or may not attach to any instance of duty. Every man has the choice of obeying duty or not, and if he does so it is because the course of duty appears to promise the greater cumulative (aggregate) positive value, however attractive in its own right (and hence frustrating) may be the prospect of the overruled line of action. And in general such a judgment is

well-grounded: in the large majority of problematic social situations the choice indicated by the prescription of duty will as a matter of fact procure to the doer the greater satisfaction. The opinion, therefore, which opposes duty to pleasure is mistaken; duty is commonly opposed but to immediate, inconsiderate behavior, the positive affective consequences of which are disappointing, insecure, paltry, and short-lived. If the duty structures of society were not potentially pleasure-productive, they could not possibly be maintained through any length of time. As for nearness and remoteness of consequent satisfactions, though in some cases duty may counsel conduct which will probably be productive only of deferred rewards, in equally as many other cases the observance of duty saves the observer from immediate penalties and substitutes immediate benefits. The supposed contrast in this respect between stern duty and easy whim is, then, impertinent and should be dropped from consideration.

IX. The term *obligation,* frequently a subject of ethical discussion, may in its usual senses be considered simply a somewhat more general equivalent for *duty*. Often an obligation is a self-imposed duty, constituted by a prior promise and the consequent expectation of others that the one promising will abide by its terms. The binding force (*ligare*) in all types of moral, ethical, social, and political obligation is the prospect of the probability of negative value following upon nonconformity. Obligation is another consequence of the fact that the behavior of human beings is not isolated but is mutually affective. The larger, social obligations, like duties, are universals derived from persistent or recurrent patterns of reciprocal behavior in the complex of human interrelationships. Thus the obligation "to pay taxes" is a universal built up from all the many instances where payment of taxes has been followed by satisfaction through social approval and non-payment by dissatisfaction through social chastisement. To "recognize" the obligation to pay taxes is to believe that the universal is true and to feel the affective influence of applying it to one's projected conduct. (It is not necessarily to *act* by it; we may "recognize" an obligation without following its prescript.) We are thus led to the next conception.

X. *Responsibility* has two general meanings. (1) The first is merely that a man *will* be held to account for his acts by his fel-

lows. An individual is considered *responsible* for a certain action of affective consequence to others when it can be demonstrated that he was the sufficient or necessary condition to its occurrence. This usage is not essentially different from, "The first billiard ball, having struck the second, is responsible for the second's motion." Responsibility in this sense is, of course, the universal covering such instances. In this meaning of the term, the consideration that the individual was or was not aware of, or does or does not acknowledge, his responsibility (probability of being held to account, of being affectively reacted upon, because of being the cause of the event) is immaterial.

(2) In the other sense of the term this consideration is not immaterial. A *responsible* man in the second sense is one who recognizes, and is influenced in his conduct by, the affective consequences of his actions upon others and the affective consequences of their induced actions upon himself. A banker is responsible in the first sense for his misuse of other people's funds regardless of his personal character; in this second sense the banker is responsible only if he is of so upright a character that he recognizes and is guided in his professional conduct by the foreseen consequences to himself of mishandling the funds entrusted to him. The term *responsibility* is here also a universal denoting such habits of character.

A banker is, fortunately, responsible usually in both senses; a burglar is responsible only in the former sense. As the former sense depends not on recognition, so with *duty*. Duty may exist whether a man recognizes it or not. If he does, however, and is influenced by his recognition, we should call him *dutiful,* or some such term, which would then correspond with the second sense of *responsible*. It will be noted in these examples that a man must both *recognize* and *be influenced by* his recognition to merit the character of responsible or dutiful. Recognition without affective influence is ethically sterile, and of course there cannot be influence without preceding recognition. These facts constitute one more illustration of that duality in ethical behavior of which we have spoken before —the cognitive and the affective aspects, knowing and feeling, neither of which is a sufficient condition but both of which are necessary conditions to moral excellence.

XI. *Happiness* is of course related in the most intimate way to

value. It may be defined broadly as the experiencing of a decided balance of positive affectivity over a considerable period of time. The expression is certainly vague, and until some limiting quantitative factors are devised and agreed upon, no amount of verbal amplification can render it otherwise. It would be difficult to find any term in the whole range of human interests more elusive and more uncertain in its connotation than *happiness*. However, more specifically: (1) The positive balance must be substantial. No one would be called, or call himself, happy who experienced pleasantness just barely more (in duration and degree) than unpleasantness or indifference (for the balance must be understood as existing in the aggregate of his affective experiences). Even for "unhappy" individuals pleasantness probably predominates to some degree. A person in whose life unpleasantness actually predominated for any length of time—the opinions of Schopenhauer and the still more pessimistic Eduard von Hartmann to the contrary notwithstanding —would probably be compelled to suicide or insanity. (2) As Aristotle has well remarked, the aggregate exhibiting a positive balance must extend over a considerable time. He is not to be called happy who just today happened to enjoy himself nor he who, setting out say for an excursion in the Engadine, has the prospect of a carefree month. (3) One of the chief ingredients in the positive value which goes to make up happiness is that derived from the contemplation of the probability that a preponderance of positive value will continue indefinitely into the individual's future. Substantial uncertainty in this regard will overshadow almost any amount of value derived from momentary external means. Happiness is thus dependent on the reassuring expectations engendered by stable relations with one's environment. (4) Further, an important ingredient of personal happiness is positive affectivity derived from the fact that the broad base of intermediate and last means which habitually provides positive affectivity is within the control of the organism. A man's balance of value is likely to be rendered precarious if his affairs, however currently pleasurable, are not to a large extent subject to his own direction and control. (This fact makes general happiness in an authoritarian State problematical, however much the citizens are otherwise provided with contentment.)

The question of the definition of *happiness* is often—indeed

usually—confused with that of the *means to* happiness. "What is that elusive thing called happiness?" may frequently be interpreted as, "What sorts of objects or actions are most surely productive of happiness?" With this latter question, however interesting and however passionately men have sought an answer in history's troublous times, we are not at present concerned. It may, however, be remarked in passing that assuredly the chief means to happiness—to the enjoyment of a definite preponderance of positive affectivity over a considerable period of time—is the possession, as personal character habits, of those modes of behavior which, considering the nature of man as a species and the natural and social environment in which the individual finds himself, are most probably productive of value. A man's ability to achieve happiness depends primarily upon himself. As to the general means to happiness, stated in a more abstract manner, I believe Aristotle's far-reaching analysis to be essentially correct: that it consists in the actualization of the generic potentialities of the organism. In the case of human beings, desirable traits of character are asserted to be a necessary, or almost necessary, condition to such actualization.

The definition of *happiness* here suggested, or other definitions similar, have often been criticized in the history of philosophy. A few of these criticisms I have dealt with elsewhere and I may expect to treat of most of them more extensively upon a future occasion. The majority certainly, and I believe all, rest upon misunderstandings of the terms involved or implied, such misunderstandings being usually the result of inadequate, impatient analysis and "taking words for things." I trust that the preceding pages of this work will have revealed the almost ludicrous shallowness of some of the hallowed criticisms (hallowed by being handed on, with minor variations and seldom reconsideration, from generation to generation of philosophers). Though this is intended as an expository, not a polemical work, I may mention two types of objection which have come down all the way from ancient times. (If staleness of repetition be held against them, they have "come down" indeed.)

It is said that if *happiness* consists only in a preponderance of pleasure, then a pig may be as happy or happier than a man. (A pig *may* indeed—and why not?—but he is not likely to, for nothing apparently pleases a pig much nor for long. Most of his existence

seems to be passed in a slough of indifference and his unpleasantnesses are many.) But since happiness is what man seeks, he must believe it better to be a pig satisfied than a man dissatisfied. But the notion is repugnant; therefore the implied definition of happiness is inadmissible.

The argument gains its specious plausibility through so many omissions and confusions that I would not even wish here to attempt an exhaustive analysis. One confusion is, that the very notion of being a pig is disagreeable to us *as humans;* but *were* we the *pig satisfied* there would be no repugnance. An irrelevant consideration has been introduced surreptitiously. Secondly, no time span is considered. No one likes being dissatisfied but no one expects to remain perpetually dissatisfied either. Therefore in comparing such a man to a contented pig, we are really being invited to compare a man who is for the moment dissatisfied but who nevertheless has the potentiality for future happiness with an animal that admittedly has *not* such potentiality. Thirdly, the meaning of "better" is left undefined. As we have seen, "better" must be taken to mean "better for." Hence when the objector asks as between pig and man, and cursorily admits only man's viewpoint, he has begged the question. But fourthly, even from man's own point of view, let him seriously imagine himself to be *continuously* and *hopelessly* dissatisfied (without even the consolations of Stoic or Buddhistic resignation) and he will find it would indeed be better for him if he were a *continuously* and *hopefully* satisfied porker.

A second type of objection which we may mention is that given classic expression in Plato's *Philebus* and a modern echo of approval in G. E. Moore's *Principia Ethica.* If *happiness* consists in the experience of pleasantness merely, then a life, like that of some ideally blissful mollusk, completely indifferent to everything in the world save its own positive affectivities would be the happiest of all possible lives. (So it would be.) But although man desires *happiness,* he cannot desire such a life—nay, it is repellent; therefore this life cannot be exemplificative of happiness and therefore happiness must contain other objects and activities than enjoyment.

No further answer to this objection should be necessary for the intelligent reader than to ask him to consider why as a matter of fact such a life, though of purest joy, *seems* unpleasant in prospect.

Just to mention one factor, the prospect of being forever oblivious to our friends affects us unpleasantly, as we are. But would it be unpleasant in the assumed state? Why no, for the assumed state is one of complete pleasantness. Or again, that we should *know* nothing seems unpleasant now. Would it *then?* No—by hypothesis. What is it, then, that appears to be the worser alternative for us in this problematic situation? Is it the future hedonistic, as against some other life of happiness, as Plato pretends? Not at all; it is *our present thought of entering into such a mode of life,* that is, the worseness consists in the present negative affectivity associated, through habit and natural prepossessions, with the implicit and symbolized behavior of choosing or accepting an existence of complete and exclusive positive affectivity, as against some more normal existence. But is this the question at issue? Certainly not, and an answer to it neither supports nor is even relevant to Plato's implied criticism. (This example I should regard as typical of the sophistical arguments which blemish almost every page of one who in many quarters has been almost apotheosized as an oracle of philosophy.) The fallacy here involved is similar to that committed *ad infinitum* with regard to the phenomenon of death—a subject we have had occasion to discuss previously in other connexions. If death is the end, the dissolution, the ceasing-to-be of an organism's existence, what literal sense can there be in such expressions as, "He *is* dead," "I wonder if death *is* unpleasant" (dying may well be), "No, after death a man *cares* nothing," "Still it must *be* (future implication where there is no future) pleasant to *be* honored after one *is* dead and gone," "Mais ou *sont* les neiges d'antan?"

Plato's criticism does, however, bring to light an interesting paradox, which may be left to the reader's consideration: that though happiness in its purest form is by definition the most desirable of states of existence, yet because we cannot *feel* it as most desirable, we cannot even hypothetically choose it (choice being determined in the end by a comparison of feelings, not intellectual cerebrations). Even though I *realize* that *in this supposed Nirvana* I should then have no slightest trace of concern or regret, I cannot but *now feel* very considerable unpleasantness at the *present prospect* of abandonment of those actualities and hopes I hold most dear and the grief my supposed change of state would evoke in my

companions. And the *present* unpleasantness thus evoked being sensibly and unalterably stronger than the *present* pleasantness associated with the bliss to be, forbids forever my considered choice of it. Of course the fact that we cannot really conceive of such a life and could never actually believe in its eventuation is another and obvious psychological reason militating against a conclusion such as the Platonic one being drawn from the argument.

XII. *Justice,* in the larger sense of the term which is the principal subject of the *Republic,* may be defined as that character manifested in a social or individual behavior pattern in virtue of which the probability of the general happiness is enhanced or maintained. In a narrower but more usual sense *justice* might be defined as the character manifested in individual or social behavior patterns such that they tend to the resolution, in the direction of enhancement or maintenance of the general happiness, of value imbalances arising within the social environment. A law is *just* in the second sense when the influence of its preventive or corrective sanctions (and without sanctions, let us recall, a law is mere advice or pretense) tends with factual probability to restore or maintain the general happiness with reference to that type of case (involving some sort of value imbalance) to which it is designed to apply. A society may be said to embody *justice* in the first sense when by and large its *mores,* laws, customs, folkways, moral norms and standards—in general, the behavioral manifestations which indicate the social character (perhaps better, constitute the social character)—are such that they tend to the preservation or enhancement of the collective happiness of its constituent members. (In either of these senses, if the tendency is to the happiness of some individual, we frequently use the term in some such form as, "It does *him* justice," "It renders *him* his just deserts," "The law may be just for *him,* but not for me." Confusion would probably be avoided if references of this kind to individual welfare were designated by such terms as *right, fair, beneficial,* reserving *justice* for cases affecting the general welfare.)

The *justice* of any act, past or contemplated, is to be judged by this standard: did it or will it tend probably to preservation or enhancement of the happiness of the society concerned? Thus, was the Roman destruction of Carthage just? Passing over the obviously

partial answers determined by the Carthaginian and Roman societies individually and speaking from the point of view of the larger Mediterranean or world society, the answer is probably yes, since the action put a permanent end to an intolerable conflict of values in a manner which, of the two principal alternatives, has enhanced the well-being of the larger, embracing society. (If the reader should choose to uphold the contrary answer, the validity of this instance as exemplifying the meaning of *justice* would not thereby be altered.)

The establishment and maintenance of *justice,* in so far as can be done through the mechanism of social structures, is the fundamental task of applied *political science.* That is to say, this is the generic aim of the legislator or statesman (whether the latter be as in a pure democracy each individual citizen, or as in an absolute monarchy the sovereign, or as in an aristocracy that select group of individuals whose natural or acquired talents render them best fitted to the office). It follows, of course, that applied political science is a discipline concerned in the last analysis with value. It is concerned with certain means to the promotion and preservation of the happiness of society or of a society, which is to say, more roughly, with certain means to enhance the potentiality of pleasantness being actualized in the social organism. A system of political science is to be approved or condemned as it does or does not support *justice.* A set of social arrangements is judged to exhibit *justice* in so far as it sustains the general happiness. Happiness is a function of pleasantness actualized in the social organism. A judgment as to whether or not, or the degree in which, the social organism experiences pleasantness is based on an inference from its observed behavior. (Theoretically the case is no different as regards the social organism than as regards any other, "individual," organism. The latter too is a complex colony of smaller "individuals"—the organs, component structures, systems, and finally the cells—and its experience of pleasantness, and hence happiness or unhappiness, is inferred from its behavior as a whole. So with the social organism: if there are observed mutterings of discontent, social instability, a high incidence of neuroses, physical clashes, and so on, it is inferred that the social organism is experiencing unpleasantness—it is "ill," so to speak; if the reverse is observed, it is expe-

riencing pleasantness, happiness, and "health." The degree of each may perhaps best be inferred from social data expressed in statistical form.) The practical aims and results of political science are, therefore, evaluated finally by the axiological implications of observed socio-organic behavior. They are evaluated, that is, by the same basic concepts which have been shown to apply to the whole field of ethics—namely, the several varieties of *value* as constituted by pleasantness, unpleasantness, and indifference.

The close relations of justice to *good, bad, right, wrong,* and *ought* are obvious. All these, and the other secondary ethical concepts we have been discussing, are interrelated by their derivative connexion with *value,* and in particular with *potential value.*

This being so, all are relative to the point of view of some organism. We have alluded to this important fact (following of necessity from the initial postulates of hedonism) in the case of the former concepts. The same is evidently true of *justice.* Just as a constellation of stars *is* a constellation—a visually closely related group of recurrent sense-data—solely from the particular and accidental viewpoint of the solar system, out of an indefinite number of existent viewpoints within our particular galaxy, so a social or individual behavior pattern may have justice or injustice truly predicated of it, and in any degree, depending on the organism which participates in determining the existence of the potential values on which the predication is grounded. What is just for one society will not necessarily be just for another: what is exhibited as justice in the tribal barbarism of the Old Testament could not have been such for Periclean Athens; what was just in the long ages when the intellectual fog of Christianity lay heaviest on the Western world is not necessarily just in the present age when that fog is being dissipated in the sun of science; what we in these times of primitive internationalism most ardently cherish as an ideal of justice must not be thought necessarily to remain persuasive upon our children's children, living, haply, under a true parliament of man. To seek and to apply a fitting system of justice is the recurrent task of every time. And even when justice is applied, axiological relativity bids us recognize that not all laws, however *just,* are *just for* (or if we prefer, *right for*) all individuals. Historical examples illustrating these observations would be, were such within the scope of our

purpose, of easy exhibition. The lesson to be drawn from all of them is that *justice* must be derived from man's value needs and fitted to serve his rational purposes with respect to those needs; *justice* is not to be found enshrined in a doctrine ordained from all eternity, unchanged, unchangeable, the exclusive possession of the chosen instruments of an esoteric revelation, inaccessible to all rational inquiry, a Procrustean bed to which mutable man must be made to conform, whether by ascetic persuasion or cruel force. The amount of human ignorance, misery, and degradation of which historically this latter, absolutist, view has been a principal cause is calculated to amaze and horrify the vulgar and to sadden and instruct the learned.

It should be noted that there commonly exists with respect to *justice* a confusion parallel to that pointed out in treating of *happiness:* namely, that in asking the question, "In what does justice consist?" the inquirer is usually seeking, not an abstract definition of the concept, but the practical *means* to its realization in some concrete setting. He is asking for the "how," not the "what." This is, of course, immensely the more difficult problem. Justice may be, as we have stated, the fitness of a social structure to promote well-being; but specifically *what* structure will embody that fitness, or embody it in the highest degree consonant with existing circumstances, is open to no easy answer in any time or place. (This confusion—or at least shifting duality of meaning—pervades the *locus classicus* of the discussion of the concept, Plato's *Republic.*)

Though the answer may not be readily ascertainable in practice, none the less, in terms of the proffered definition, an assertion as to the existence of justice in any specified context and *for* any specified organism is open theoretically to almost any desired degree of empirical verification. For an assertion of justice is, as we have seen, essentially but the assertion that a certain social arrangement, law, custom, pattern of behavior, and the like, or individual act, habit, decree, and so on, does as a matter of fact probably tend to the cherishment of the general happiness. This is to say, we are concerned once more with a proposition of the type expressing potential value: at a certain time in the future, an organism (here usually a particular society) will probably be receptive to a certain type of behavior, a certain type of behavior will probably have such and such

effects (as in the course of past observation), and if such behavior is actualized, P will result in the organism (or at least the occurrence of P will not be thereby hindered); the behavior in question "has" aggregate potential positive value; of it may validly be predicated *justice*. As we have seen previously in some detail, each of the components of such a proposition is operationally verifiable.

As was suggested a moment ago, the happiness of society is judged as is the happiness of, or existence of P in, any organism—by the nature of the organism's observed behavior. The behavior of a compound organism—and at least all organisms above the virus level are compound—is an average or resultant of the behaviors of its components, or of a representative sample of its components. A society is happy when it acts in a happy manner. A civilization or an epoch may be judged to have been happy when the average behavior of such of its component members as have had the record of their activities preserved in artifacts was of a kind which, by empathic analogy, we infer to have been the expression of individual well-being. Gibbon's famous judgment concerning the felicity of the civilized world under the enlightened and effective rule of Nerva, Trajan, Hadrian, and the two Antonines rests perforce on evidence of this character. It is worth noting, as a fact not often realized, that the judgment concerning the happiness of an individual is of like kind. For the human organism is composed of parts, and it may well happen, and often does, that when we pronounce the organism as a whole happy, one or more parts are not. Thus from his total, average, or resultant behavior we may truly judge a man happy during an extended period of time even though his left little finger is giving him incessant uneasiness. Or the reverse—though a man's vocal behavior, "I am happy," may persuade us to believe the stated fact, yet at the same time the physical behavior of the rest of his organism may make it highly probable that he is actually not happy, however sincere his own belief. As such judgments, both individual and social, are of daily occurrence and of proven usefulness in adjustment to our organic environment, we need not scruple to acknowledge and accept them as an element in the compound judgment as to the degree of justice obtaining in any particular circumstances.

It is a nice question whether, in view of the suggested definition

of *justice,* the concept may or may not be applied to animal behavior. It might be thought, for instance, that the instinctive behavior patterns of a particular tiger are, through evolutionary molding, conducive to the maintenance or enhancement of the happiness of the species. On closer inspection we might see cause to doubt the fact—for the behavior of tigers, unlike that of humans, is almost wholly self-sufficing—and so to deny the applicability of the term *justice* to any feline activity. In considering the ants and the bees, however, we might think it appropriate, in view of their definitely communal behavior—they are by Aristotle numbered amongst political creatures—to reverse our decision. Although it is certain that we do not ordinarily think of the concept of *justice* as applicable to animal behavior, there is no *a priori* reason why it should not be, provided the empirical conditions of the definition are in some degree met. The subject is of interest, since whether an affirmative or a negative answer be arrived at, light is thrown upon the meaning of *justice* as applied to human affairs. However, as the question diverges from our main purpose, it may for the present be left thus open.

In the definition of *justice* here adumbrated it will be noticed that, though the conduct in question may be individual, reference is ordinarily made to its effects upon the general happiness or well-being. The perennial difficulty then asserts itself: why should an individual act justly? Why should he be concerned with the effects of his behavior upon the *general* happiness? Why, under the hypothesis of hedonism, should he look beyond *his own* happiness? Or rather, by hypothesis how *can* he look beyond his own?

The obvious reply to this "difficulty" must at this stage of the argument come with somewhat an air of the pleonastic. Hedonism does assert that an individual's personal welfare (in terms of positive affectivity) is the "end" or determinant of all his conduct. But the affectivities and consequent reactions of others are among the most important means to that "end." Therefore the circumspect man gives due heed to the general welfare, that is, acts in accordance with *justice,* because in a social milieu the general welfare most intimately reflects upon his own. To put the matter in colloquial terms and shocking to the conventional or idealistically minded, the good citizen is and should be just because by and large justice pays. When,

as a matter of fact and by and large, justice does *not* pay, the good citizen should not follow its precepts—not because he then should to his private advantage indulge in injustice, but simply because justice which does not pay, as a matter of fact and by and large, is not *justice.*

The perceptive reader will realize, without further elaboration, that there are and must be in regard to this view of the utility of justice, however valid it may be in the abstract, a number of practical difficulties and limitations. It is a difficulty to determine what degree or proportion of non-utility shall be allowed in a social structure and still have it considered to remain within the denotation of the just. It is a limitation that society cannot permit every individual member to decide practically, on the basis of purely private and frequently mutable considerations, that those structures which society holds just impede, in fact, his prospects of personal felicity.

In actual usage the term *justice* is given a great many shades of meaning, only more or less remotely connected with the basic senses here explicated. To take a random example, we speak of "poetic justice." "It is an instance of poetic justice that Caligula should have been assassinated." Here *justice* has the sense of retribution, the "poetic" suggesting that we derive from its contemplation a sort of aesthetic satisfaction or that the circumstances were such as are most often exhibited in the artificial neatness of the drama. None the less the essential connexion remains, in that the justice predicable of the bloody removal of this Imperial pest was constituted by its being an act which undoubtedly enhanced the general happiness of the embracing society. It was *just for* the contemporary Romans and it is *just for* us epigones, for our general happiness is likewise enhanced in our vicarious experience of it, say in the perusal of Suetonius' scandalous page. Furthermore, as a general principle—*sic semper tyrannis*—we should call such deeds just, for we should suppose that in similar circumstances they would promote the general happiness of almost any imaginable society.

XIII. One last term that we may briefly treat of, not specifically ethical in connotation but implicated nevertheless in much of ethical inquiry, is *importance* and its adjectival derivative *important.* We are admonished by moral casuistry to devote our major efforts

to the truly *important* things of life. We are advised by ethics, in the event of a conflict of goods to seek the realization of the one of greater *importance* and to sacrifice the other without repining. A political system, especially in its judicial formulations, must place primary emphasis on the *important* aspects of communal behavior.

Now basically, to be important simply signifies, to be a means, last or intermediate, to value, instrumental or terminal. Degree of importance is a function of the greatness of the value to which the object or action is the means. Thus: "This screwdriver is my most important tool" (compared to each of my other tools, this one contributes more to my satisfaction—the instrumental value, say, which I derive from various artifacts of my carpentry); "Whether one has blue or brown eyes is not ordinarily important" (ordinarily the blueness or brownness of one's eyes is not a factor much contributing to one's happiness—the value for which either circumstance is principally responsible is exiguous); "Bach's *Wohltemperiertes Klavier* is a work of great importance" (it is directly a source of great pleasure to the musically adult and indirectly it has been a means which has immeasurably enhanced the richness of the classic effluence of music, which effluence is itself a last means to our aesthetic satisfaction).

Such being the general meaning of the concept, it follows that nothing is of importance in itself, nor is anything important in relation to other non-affective objects. The billiard ball which strikes is of no importance to the billiard ball which is struck; for the latter does not "care" whether it is struck or not. In this connexion we must carefully distinguish the usage of the term in question in such phrases as "Lunar motion is the most important factor determining tidal phenomena" or "The most important single cause of the fall of the Roman civilization was the desiccation of Central Asia." Here *important* simply means most influential—though the exact philosophical significance of the latter expression is still a matter of considerable difficulty, involving as it does the notion of natural or historical causality. (A complete explanation would probably involve a reduction of the effect to numerical elements, so that the factor called most important could be shown by itself to determine the greatest part of the effect. Thus the moon without the gravitational influence of the sun would produce the greater part of the

effect we observe as tides; the desiccation of Central Asia, it may be maintained, by impelling the irresistible surge of the nomadic tribes would alone have shaken the foundations of the Empire to a greater degree than any one of the other ten or a dozen factors taken by itself. So the most important factor in an election may be said to be that which would probably have determined more votes than any other factor separately considered.)

But at any rate in the axiological sense *importance* can be predicated of an object only in so far as that object influences the affectivities of some organism. As we have noted several times in connexion with other value concepts, *importance,* then, must always be *importance for.* A thing is important only *for* the organism it affects, and it is *important for* in the degree and extent to which it engages the affectivity, actually or potentially, directly or indirectly, positively or negatively, of that organism. The photosynthetic formation of carbohydrates in the chlorophyll-containing tissues of plants is, for instance, a natural process of the highest importance to man, for ultimately all his life-activities depend on it—but it is of *indirect* importance, for no one save possibly the biologist derives any *direct* satisfaction from the phenomenon of photosynthesis.

If importance is unqualifiedly predicated of an object, the usual standard of reference is humanity or some understood society. "The struggle between reason, as exemplified in science and philosophy, and unreason, as exemplified in totalitarian political ideology and authoritarian religion, is the second most important problem of our time," that is, important for the welfare of society. (If the reader should be curious to know what might be called *the* most important problem of our time, it would in the author's opinion be the ominous combination of the shrinking of the earth's soil resources with an uncontrolled geometrical increase in the earth's human population. This combination, if not broken, will destroy all we know and value as civilization with a thoroughness and certainty no ideological or methodological conflict, no atomic warfare, nor any other foreseeable cause could match. . . . The reader may surmise that these two problems of prime seriousness facing humanity, the ecological and the rational, are not unrelated.)

One of the objects of most importance to humanity is of course—man himself. This fact makes it appropriate to consider at this point

that notion, assuredly one of the watchwords of our time, which may be epitomized in the phrase, "the infinite worth and dignity of the human individual." (This shibboleth is often associated with another, "man's inalienable rights." However, we have perhaps considered at sufficient length the nature of *rights* and the question as to whether any can properly be styled "inalienable." In our view the meaning of the latter predicate can at most be: rights which, for mankind's own good, *ought* not to be alienated.)

Now *worth* and *dignity,* as used in this phrase, are but variants of *importance* and ultimately, of course, of *value.* But since in our present doctrine *value* must be *value for,* it follows that here *worth* and *dignity* must respectively be *worth* and *dignity for.* We ask, then, the usual (indeed, indispensable) question: *for* whom? There appear to be three general answers possible: (1) for some higher being who takes pleasure in the human race, *qua* human; (2) for certain other creatures (for example, dogs) to whom the human race is a source of satisfaction; or (3) for the human race itself.

There is no acceptable evidence for the first answer; to be valued, as in the second, by dogs and a few other philanthropic creatures could be a source of no great satisfaction nor a legitimate ground for the reverence which is commonly accorded to the notion under examination; hence if the notion is to have any real utility or pragmatic value, it must be considered to be grounded somehow in the third answer.

But—and one blushes in saying it—to proclaim "the *infinite* worth and dignity of the *human* individual," when that dignity and worth are only *for* man himself, is obviously but a grandiloquent form of self-admiration and certainly of no cosmic significance, as man in the glow of his love for himself appears often to believe. Indeed, from the point of view of the totality of creatures with whom man comes in contact, far from his being endowed with any "infinite worth and dignity," it might well be asked whether the human race inhabits the earth or whether it infests it? As a human being, I am humble in the face of the answer I should expect. (On the other hand, however, I console myself with the reflexion that if the asker of the question were established, say, somewhere in the great nebula of Andromeda—900,000-odd light-years distant from this little ball of clay on the surface of which the question finds its

only application—the answer would not greatly matter one way or the other.)

The realization of these facts, when we have turned aside long enough from our self-important activities to consider them, should lead us to adopt an attitude of humility in the face of the stupendous vault of Being, very unlike the *hubris* engendered by the certainty that one is by right of birth a member of God's elect, the Chosen People, the Master Race, one of the appointed instruments of Manifest Destiny, and the like insolences. No—the individual has "worth and dignity" (and that by no means "infinite") only to himself, his fellow men, and to a few creatures whose lives he renders easier. To the proposition that the individual is *important* in this sense—that it is incumbent upon society, in the interests of its own long-range welfare, to respect and be tolerant of individual differences and freedom of choice as a matter of principle and to the maximum extent consistent with the preservation of the amenities of social living—to this limited significance of "the worth and dignity of the individual" and his "rights" no one assents more fervently than the author. A protest is to be raised, as above, only against the confusion and arrogance which are fostered by the inflation and projection of the notion onto the universe as a divine dictum or a metaphysical datum. The more modest view is sufficient for the brief span of mortal existence.

Thus, in summary, by the definition of *importance* here suggested many things are important for many individuals; few things are "really" important, that is, important in degree and duration for mankind; and nothing is absolutely important. In external, nonorganic nature no fact is important at all; it simply *is*.

Even that endemic *importance,* which for man attaches to an excerption from the given totality of things, converges in the endless perspective of time to the infinitesimal. As has been elsewhere implied, far from being an occasion for despair, this fact of progressive temporal attenuation is the key to wisdom in the conduct of life and the foundation of life's noblest consolation.

Chapter 5

BEAUTY, ECONOMIC VALUE, LOVE, AND *TRUTH*

WITH AN ANALYSIS IN HEDONISTIC TERMS of *value,* value propositions, and the meaning of *ought,* and a more summary discussion of certain of the secondary conceptions of ethics, the main part of the plan of this work has been accomplished. However, since it has been claimed that the hedonistic account of value has the unique advantage of providing a vehicle of explanation in all the axiological fields by means of the same set of postulates, there will be appended now, in the nature of a postscript to the core of the discussion and an epitome of work to come, a briefer indication of the applicability of that set to the general fields of aesthetics, economics, and one or two others. This will take the form of scarcely more than an indication of how the key conceptions in each of these fields would be defined or delimited in terms of a hedonistic theory of value. It may for the present be left to the reader to consider the fruitfulness of the conceptions thus elucidated in bringing order and unity to these departments of learning and making possible the use therein of the scientific method.

The central concept in aesthetics is *beauty.* It is generally considered that if this concept is properly defined, the key is provided for the solution of a large proportion of the problems of aesthetics. Conversely, unless the nature of beauty is made clear no progress can be expected in resolving those problems in which the conception is necessarily involved. First then, *beauty* is evidently a universal; it is a quality or character which may be predicated of certain objects and not of others. The objects of which it can properly be predicated are the denotata of the term *the beautiful* or *beautiful objects.* Furthermore, beauty may be predicated of objects in an indefinite number of degrees.

Now what *is* the character which allows of some objects being called beautiful and others not beautiful, or ugly? I aver that essentially it is simply their giving, or the potentiality of their giving, pleasantness to some organism when the two are brought into a contextural relation. But this, as we see, is the same as saying that the objects are valuable or that they "have" value. But not all valuable objects are called beautiful. Of what particular sort of value, then, must an object be the occasion properly to be called beautiful? It must be the occasion of positive terminal value. Beauty, though it may be subject to further qualifications, resides in the realm of terminal values—and is associated with the positive, as ugliness is with the negative, terminal values. In less technical language, we ascribe beauty to those objects which occasion us pleasantness "for their own sakes," immediately, and not because of the recognition or supposition of any causal relation to further valuable objects. Beauty is predicated of objects which are last, not intermediate means. The clarinet is not beautiful because it is the means to the creation of beautiful sounds, though it "has" instrumental value on that account. If the clarinet is beautiful, it is because of its own lines, proportions, silver keys, workmanship, and so on. (Note the common ambiguity in, "The clarinet is a beautiful instrument": the instrument itself? or the *sounds* which a competent performer can call forth from it?)

There are many apparent exceptions to this defining characteristic. What about a beautiful move in chess? Is it not beautiful because it is precisely instrumental to the checkmate which, by the nature of the game, is itself invested with value? That is, is not beauty ascribed to some master moves although the value which they occasion is instrumental, as existent only by reason of the causal connexion of the object with another, itself valuable? Surely there is nothing beautiful about moving a block of wood called a Rook from QKt7 to KB7 on an empty chessboard. No, there is not; and this shows that this move merely is not the object which we are agreed to call beautiful. In reality the object, like almost all which can be so characterized, is complex; it is rather in this case "the move R-KB7 in a certain caissic situation, as being unexpected, and leading to an ineluctable mate more speedily than any other move." This, and more too no doubt, is the complex object which occasions

positive affectivity, and it does so "for its own sake," not because of being an intermediate means to some other object (such as the means which enables us to collect the side bet made on the outcome of the game), not because it "has" instrumental value; but it provides immediate pleasure, because it "has" terminal value.

Similarly with a "beautiful curve" in a particular work of graphic art: the curve is not valued *because* it leads the eye to the central attraction of the composition; yet the object valued is not just the curved line in isolation (though it is possible that this line quite alone might have a measure of beauty), but it is "this graceful line in this complex pattern within this spatial frame as leading to such and such a particular point of convergence of interest." The affective meaning of the object of which beauty is predicated is determined by its context; but it is not valued *because of* that context. So in music—for instance the first two chords of Schubert's *Am Meer:* the poignant opening discord is not valued *because* it leads to the resolving concord (if this were the case it would "have," not aesthetic value, but instrumental value), but it is valued "for its own sake"—but what "it" is, is determined by "its" relation to the resolving concord (and vice versa). The principle which this illustrates—that the central and characteristic meanings in music are exclusively intra- and inter-determined—is that which gives music its preeminence among the arts in respect to purity, immediacy, subtlety, and degree of complexity in unity.

These examples illustrate the care which must be exercised in the predication of *beauty* to ascertain just what the object is of which that elusive quality is predicated. The more importance attaches to this matter as, since almost every aesthetic object is complex and works of art extremely so, two or more persons who agree to call an object beautiful are often not referring to the same thing. Indeed, in a literal sense they never are, for (1) beauty is engendered only in a private relationship which can never be identical for two individuals, (2) due to the eternal flux of things no object is ever literally repeated in time, and (3) the complexity of objects is such that the identical set of elements, it can be said with a probability approaching to certainty, will never be attended to (reacted with) by any two individuals nor by the same individual on two different occasions (in fact the "same individual" will never

be the same on two different occasions). I may loosely say, for instance, that I have heard Mozart's *Cosi Fan Tutte* ten or a dozen times and that of "it" I predicate *beauty*. Actually I have heard ten or twelve highly complex, closely resembling, but different objects, and having experienced terminal value in relation to each, I pronounce a hypothetical, resultant object—a distillation from the several experiences—to be beautiful. It is quite possible that another person, who also has heard *Cosi Fan Tutte* an equal number of times, pronounces "it" not beautiful. This *may* be because he has heard just what I have and has not experienced positive affectivity, but it is overwhelmingly more probable that his "it" (the aesthetic object) differs significantly from mine. Even if his perception were identical—and even that is not probable—his apperception would differ, for his personality insures that his relational contextures shall be divergent from mine.

This matter of the uniqueness of the aesthetic object may be illustrated in a forceful manner by assuming an actual example. The author has elsewhere analyzed "a glass of Burgundy," a comparatively simple object enjoyed for its own sake. But what is the "glass of Burgundy" that is on any particular occasion enjoyed? It is a complex of elements of experience—certain shades of red, a particular taste, a certain visual form from a certain point of view, coolness, reflexions on the wineglass, mild intoxication, the gurgle of the pouring liquid, some associations awakened in the individual, the weight of the glass in the hand, the space-filling sensation of the wine in the mouth, the fragrance of its bouquet, and so on; in the paper referred to, the author distinguished 158 such elements which, apprehended in any combination, may, on an assumed particular occasion, go to make up the aesthetic object being enjoyed, "a glass of Burgundy."

In any proposition referring to this object, then, there are as many possible referents of the term as there are total combinations of the 158 elements taken 1, 2, 3, 4, . . . up to 158 at a time. Now the total number of combinations of n things taken 1, 2, 3, 4, . . . n at a time is given by the well-known formula

$$C^{n}_{1,\,2,\,3\,\ldots\,n} = 2^{n} - 1$$

Accordingly, when a man declares that he has enjoyed or is enjoying or expects to enjoy a "glass of Burgundy," or makes any other

statement concerning it (assuming it to contain 158 distinguishable elements), the number of different objects possible (that is, the number of possible denotata of "glass of Burgundy"), to any one of which he may be referring, is approximately

36,538,000,000,000,000,000,000,000,000,000,000,000,000,000,000

If this number of possible referents of "glass of Burgundy at such and such a time" boggles the imagination, let it be considered that such an object is surely one of the simplest likely to be the subject of an aesthetic judgment. Consider, for instance, just the number of notes in the score of a symphony; when a person says, "I have listened to so and so's *symphony* and I don't like *it*," the different possible auditory objects, just one of which stimulated his affective reaction, greatly exceed in number the largest figure which in the usual manner of notation could be printed on this page.

These elementary observations show it to be overwhelmingly probable, with regard to even the usual works of art, that no one has ever experienced or ever will experience literally the same object, say a particular musical composition, painting, or drama, either (a) himself on two different occasions or (b) the same as any other person on the same or a different occasion. There is therefore no necessary logical contradiction involved in A's assertion that the symphony is beautiful and B's that it is not beautiful, nor in A's assertion with reference to two different hearings of the "same" symphony that it is and is not beautiful. The number of combinations of elements in any fairly complex object—and art objects are surely as a class the most complex to which we devote sustained attention—makes it probable indeed that every aesthetic stimulus-response contexture which has occurred in the cultural history of the world has been unique. (This being so, the amount of aesthetic controversy and confusion which has prevailed is no matter for wonder; we may wonder rather at the very substantial amount of clarity and agreement evidenced in aesthetic affairs. The clue to this lies, of course, in the minutely graded degrees of similarity among the possible referents of every aesthetic substantive.)

Such considerations evidently illustrate the fact that one of the most serious difficulties in aesthetics as a cognitive discipline is this vagueness of the aesthetic object—or, what is the same thing as vagueness, the indefinitely delimited extent of the denotata of any

word-symbol of an aesthetic object. Actually such a word-symbol is a universal of the third order: there are first all the actually experienced, unique objects of a certain general kind (for example, all the *Cosi Fan Tuttes*) which are felt as beautiful; second there is the class *Cosi Fan Tutte* whose denotata are the individual's several similar experiences; and third there is the general class *Cosi Fan Tutte* whose designata are the subclasses, *Cosi Fan Tutte,* of all those individuals who have ever had the similar experiences. The latter is what is ordinarily indicated in a judgment such as, "*Cosi Fan Tutte* is beautiful."

Yet beauty is *experienced* only in the immediate, first order objects, not in the second or third order universals. (This statement may be taken as equivalent ontologically and epistemologically to Aristotle's cardinal doctrine that forms have a being only *in rebus.*) Though aesthetic judgments may refer to the third order universal, it is not this abstract, distilled, aetherialized *Cosi Fan Tutte* which is beautiful, but the more or less similar existents actually heard by an indefinite number of individuals and, in those severally unique resulting contextures, accompanied by felt positive affectivity. Failure to recognize these distinctions will make, and has made, aesthetic theory a shambles of confusion. In what follows concerning the concept of *beauty* they are to be kept in mind.

We have said that an object is called beautiful—or it is at least a necessary condition to its being so called—when it occasions positive terminal value. Instrumental value we have excluded. Instrumental value becomes a ground for the ascription of beauty only as a result of the well-known "means to end mutation," when objects (intermediate means) formerly providing instrumental value by reason of their causal connexion with some other objects (last means) which "have" terminal value, come, through habit (conditioning), to provide terminal value "on their own account" (immediately). Since no object is literally an end in any behavior sequence, affectivity being the sole end, this much discussed phenomenon should rather be called the "intermediate to last means mutation."

We did not specify actual or potential, direct or indirect value. Evidently these distinctions are not pertinent to the definition of *beauty. Cosi Fan Tutte* is beautiful when someone is listening to it and enjoying it for its own sake, but it is also beautiful if it can

be truly asserted that if a Western cultured man listens to it under certain conditions it is probable that he will experience terminal value. Furthermore, an object is judged beautiful when its symbol gives pleasure. Even though a man cannot read Greek, he may feel beauty in the bucolic *Idylls* of Theocritus by reading a faithful translation (a translation which *is* a symbol of the original). For him, as for most men, the *Idylls* can "have" only indirect value; for those who are culturally so fortunate as to be acquainted with that most excellent of languages, the *Idylls* "have" direct value. But in either of these alternatives beauty may dwell, thus showing that actual or potential, direct or indirect value are dichotomies not pertinent to a definition of the term.

But, to resume at an earlier stage in the argument, is every object, then, which occasions positive terminal value to be called *beautiful?* I think not. Occasioning terminal value is very likely a necessary condition to the predication of *beauty,* but perhaps not a sufficient one. The cloud which traverses the corridor of sky framed by my window gives me a sensation, slight but real, of immediate pleasantness. But I do not therefore, or would not ordinarily, call the cloud-in-the-window-framed-sky beautiful. At most I should think it pretty, or charming, or just simply pleasing. But now we see that we have reached the realm of verbal convention—in this case perhaps purely personal. Indeed, given the *necessary* condition of terminal value, the *sufficient* conditions which govern the application of the predicate *beauty* are among the loosest and most varied of any general predicate used in common speech. To search them out and classify them, with a view to an exact specification of the predicate's valid applicability—in other words to providing a precise practical definition—would be a labor of far more length than there is now space or occasion for. The result would be largely the history of a word, and only secondarily a philosophical analysis of it. The latter stipulates at least consistency, whereas the history of the usage of *beauty* and its synonyms would show a number of palpable inconsistencies. The following, however, may be mentioned as among the added limitations commonly placed on the applicability of the predicate:

(1) It is usually limited to objects which arouse pleasantness through the senses of sight or hearing. (a) The senses of touch, taste,

smell, balance, kinaesthesia, and so on, are not ordinarily associated with *beauty*. There is, however, utterly no valid reason for this distinction. To speak of the deep red of a glass of Burgundy as "a beautiful color" while denying the adjective to its gustatory body and olfactory bouquet is to make a distinction without a difference. (Santayana's opinion, that *beauty* tends to be regarded as objectified, and the more intimate sensory data do not so readily lend themselves to objectification, is probably as reasonable an explanation as any. But that, it is evident, is a psychological, not a philosophical criterion.) (b) An exception to this sensory rule is the usage whereby mental constructs are called beautiful: "the beauty of certain of the theorems of Archimedes," "the beauty of the last hours of Socrates," "Galileo's beautiful demonstration of the law of periodic motion in pendulums," "Plotinus' beautifully imaginative conception of the world-order," and so on. In these examples, it will be noted, the predicate *beauty* is being applied to highly complex objects.

(2) *Beauty* again is generally limited to those objects which, within their respective classes, provide pleasantness of a high order. (a) Degree. If a woman's face and figure are simply pleasing, she is called *attractive, nice-looking,* or some similar adjective importing modest praise; if they give pleasure in somewhat greater degree, she may be *pretty;* but if they are "such as to send all beholders away aching," then she is *truly beautiful.* (Why the highest degree of beauty should occasion concomitant "aching" may, in the light of all our discussion heretofore, be left to the reader's consideration.) Strokes in tennis which neatly accomplish their purpose are "nice shots"; those which persistently raise white dust from the side lines and leave the opponent shaking his head in perpetual bewilderment are "beautiful play." It is obvious that such distinctions, except for the higher relative degree of pleasantness involved, are purely arbitrary and often hopelessly vague. (b) Extent. So also, especially in reference to works of art, the extent of the pleasure is made a criterion of the appropriateness of predication. One poem, limited in its cultural connexions, is "pretty but hardly beautiful"; another poem, elegant in itself and rich in its arousal of the funded cultural experience of the reader, from which ramified connexions more pleasures are continually winging their way into awareness, is "a thing of beauty." But again the richness required to justify the

predication of the term remains (necessarily) unspecified and the usage, accordingly, vague. From thence take their origin, especially in the world of art, those fruitless disputes as to whether an object, which all the disputants may agree in admiring to *some* degree and extent, is or is not to be called *beautiful.*

Such controversies hardly rise above the verbal level. The real question at issue in these cases, and the one which (as it has been our purpose to maintain with respect to all questions concerning *value*) is accessible to operational, scientific investigation, is whether or not and in what degree a particular object "has" terminal value, actual or potential. For that an object is the actualizing cause of terminal value is the essential—the necessary and often sufficient—condition to *beauty* being predicated of it. Variants in the meaning of the term, occasioned by divergencies of verbal usage, are of little theoretic interest. The ensuing problems are secondary, the primary problem (temporally and logically) being whether or not the object falls in the class of objects which are probably capable of evoking immediate pleasantness in some organism. For if a thing is judged to have the potentiality of causing terminal value, it may, in a broad sense and with obvious reservations in each instance, properly be called *beautiful* (the term thus covering attractive, likable, pretty, enjoyable, handsome, agreeable, pleasing, good looking, elegant, and so on). Certainly the question whether a work of art is or is not beautiful is comprehended in this formulation: does it or does it not (with careful attention to what "it" is) "have" positive terminal value? Accepting this, the way is open, in the light of our previous discussion of terminal value propositions, for the introduction (long overdue) of scientific method into the field of aesthetics, as into that of ethics. Questions of degree and extent of terminal values attaching to any art work, and any arbitrary verbal distinctions thereon dependent, can be left for subsequent adjustment.

The problem of *beauty* being thus conceived as basically a problem in terminal values, other consequences follow from the principles previously enumerated.

First, as *value* is relative, so is *beauty.* Nothing is beautiful in itself, apart from a reacting organism. *Beauty* is always *beauty for.* Those who hold otherwise (for example, the ontological realists) are forced either to deny beauty to some objects which apparently

have every right to it or hold unbelievably that the objects were and always will be beautiful whether enjoyed or not, or even known. The game of chess is again an easy example. Those who are conditioned to the game will declare it the most beautiful creation of man's instinct of play. So far as may be judged from human experience, chess has the same and as much right to be called beautiful (albeit perhaps in a less rich and extensive degree) as have the art of the string quartet, the craft of Greek coin designing, the constellations of the winter sky, or the unclothed female figure of thirty summers. But it is perfectly incredible that chess was a beautiful object in any sense before ever the game was invented and developed, that it will still be beautiful following the final conflagration of the world, and that just this particular set of thirty-two blocks of wood, a checkered board, and a set of rules must be beautiful now (though they know nothing of it) for snails and snakes, orangutangs and ostriches, Martians and the mortals dwelling in the farthest galaxy —all this because chess is postulated to be, in some metaphysical manner, "absolutely" or "objectively" beautiful. It *is* credible, on the contrary, that chess is *beautiful for men,* simply because it is so constructed as to provide them with pleasure "for its own sake."

An assertion of *beauty,* then, to be complete and arguable, must specify the organism of reference. Such reference might be called the "aesthetic universe of discourse." Chess is not beautiful *for* the snail; the snail is not beautiful *for* the average human being (though a particular snail, of exceptionally elegant proportions, may be *for* the man of learning whose specialty is *gastropod mollusks).* Händel's *Angels Ever Bright and Fair* is assuredly not beautiful *for* the average inhabitant of Arabia Felix; neither is the music of the Arab rabeyby beautiful *for* the average cultured Western European.

Such relativity has been held to be the negation of any attempt at a philosophical aesthetics. This is a mistake and a most pernicious one. Relativity is no more destructive of aesthetics than of axiology —and we have seen this to be not the case. It no more hinders the assertion of true propositions in aesthetics than physical relativity hinders the compilation of an ephemeris of planetary and stellar positions. The ephemeridal data are relative to any convenient arbitrary reference point; the true propositions of an aesthetics are relative to some convenient and arbitrary type organism. *De gusti-*

bus non disputandum est is one of the shallowest and most indefensible propositions ever to gain careless currency; it and the attitude it represents have done as much as any single factor in cultural history to impede the achievement of a scientific aesthetics.

A has a taste for Leonidas of Tarentum; B does not. A declares Leonidas' poetry beautiful; B declares it banal and tiresome if not ugly. Must the matter rest there? Only if our aesthetic universes of discourse are to be limited to A's and B's behavior patterns severally. But why should they be? When we ask the quite legitimate question, is the poetry of Leonidas of Tarentum beautiful or is it not? we certainly do not mean to determine our answer simply by A's, B's, or our own idiosyncracies. What then is the universe of discourse within which we ask the question and expect the answer? I should suggest that it is determined in this instance by the character of a particular type of individual: the individual, namely, who has attained a certain degree of cultural maturity in the Western tradition, who has evinced interest in the creations of poetry, who is of a discriminating turn of mind, and perhaps who has a command of the Greek language. When we ask if the poetry of Leonidas is beautiful, we are asking whether or not the majority of connoisseurs, in something of the preceding sense, derives positive terminal value from reading it. If it does and if A is of this type and B not, B is declared to be mistaken in his judgment, notwithstanding the truth of the proposition, "Leonidas' poetry is not beautiful for B." The apparent contradiction, of the same object being both beautiful and not beautiful—a confusion embedded in much of aesthetic theory—is evidently nothing but the effect of referral to two different universes of discourse. So likewise if A finds Leonidas' work beautiful and the *cognoscenti* do not, A would be declared mistaken, even though for him it *is* beautiful (that is, a source of positive terminal value).

This brings us to a second point which follows from conceiving of *beauty* as basically a form of terminal value—namely, that the distinction of actual and potential value is then applicable. Analogously to value propositions, the same object for the same organism may be actually and potentially beautiful, actually and potentially not beautiful, actually beautiful but potentially not beautiful, or actually not beautiful but potentially beautiful. Thus in the preceding difference of opinion, Leonidas' verses may stand in any of

these relationships, not self-contradictory, to A and B independently; whereby, considering just these two individuals and this one aesthetic object (complex as usual), the following internally consistent but severally exclusive value relationships may hold:

1. A(b,pb) B(b,pb)
2. A(b,pb) B(b,pnb)
3. A(b,pb) B(nb,pb)
4. A(b,pb) B(nb,pnb)
5. A(b,pnb) B(b,pb)
6. A(b,pnb) B(b,pnb)
7. A(b,pnb) B(nb,pb)
8. A(b,pnb) B(nb,pnb)
9. A(nb,pb) B(b,pb)
10. A(nb,pb) B(b,pnb)
11. A(nb,pb) B(nb,pb)
12. A(nb,pb) B(nb,pnb)
13. A(nb,pnb) B(b,pb)
14. A(nb,pnb) B(b,pnb)
15. A(nb,pnb) B(nb,pb)
16. A(nb,pnb) B(nb,pnb)

where A and B are the organisms, b means actually beautiful, nb actually not beautiful, pb potentially beautiful, and pnb potentially not beautiful. That these relationships are not mere abstractions, but occur daily in the formal or informal discussion of matters aesthetic, becomes evident upon their being translated, roughly, into verbal propositions:

1. Both A and B like Leonidas and probably always will.

2. A likes Leonidas and always will, but B for some reason (which must lie within himself, since the aesthetic object is not likely to change), though liking him now will come to find him indifferent or even ugly.

3. A is a firm admirer; B though not admiring now will come to admire (usually such an alteration comes about through personal cultural development).

4. A appreciates Leonidas and will appreciate; B does not and probably never will (probably because, due to heredity or environment or both, he is just not capable of responding to anything so exquisite—because, in blunt Biblical terms, the elegiacs of the Greek poet are pearls before his swinishness).

5. (The reverse of 2.)

6. Both A and B enjoy Leonidas now, but unfortunately they will probably not in the future. (Perhaps they are both declining into insensitive senility. If the time reference is *post* mutual *mortem,* then of course Leonidas will not be beautiful for them; though, as we have seen previously in discussing the fallacy of continuing to imply the existence of an organism after the dispersal of

its elements which is death, we cannot strictly say this, since at that time "for them" will be without denotata and hence without real meaning.)

7. A finds Leonidas beautiful but some day his poetry will become indifferent if not ugly; B, exactly to the contrary (being now but an infant, say), is indifferent, but some day Leonidas' elegies and epitaphs will mean much to him.

8. For A Leonidas, alas, will lose his bloom; for B Leonidas has none and never will.

9. (The reverse of 3.)

10. (The reverse of 7.)

11. A and B, being both college freshmen, have never had a taste cultivated in them for anything of so rare an order as the *Greek Anthology,* but given a few years in their new cultural environment they will probably find their eager way into that lovely garden of the human spirit.

12. No, we were mistaken: A, with his nobler character, will find *his* way; B, alas, seems doomed to remain a cultural ignoramus.

13. (The reverse of 4.)

14. (The reverse of 8.)

15. (The reverse of 12.)

16. A and B, like the great majority of human beings, care not for Leonidas of Tarentum and probably never will.

The spinning out of this one example to such length is calculated to illustrate the complexities which lie concealed in almost all aesthetic questions. A dispute between A and B concerning the aesthetic worth of the extant remains of the ancient poet may involve and depend for its resolution upon any of the sixteen relationships just enumerated. Nor is even this the end of the complexity, for we have not taken into consideration in this example:

a. That the time reference of the potentiality of beauty may be different for A and for B; we have regarded it ostensibly as identical. (It may be different even for one of the parties. Thus it may be maintained that the poetry in question is and is not potentially beautiful for A—but of course only if the time reference is different in each case. This may seem rather obvious when presented in this form, yet many an aesthetic dispute has turned on just such overlooking of relevant factors.)

b. That beauty may be predicated in an indefinite number of degrees.

c. That nb and pnb really cover both indifference and ugliness.

But as has been suggested, the real question of the beauty of an object—especially of a work of art—lies not between any two individual's reactions, actual or potential; in its usual (conventional) meaning the question is that of the potential positive terminal value of an object for an abstract organism which may be called *cultured man,* the time reference being a future extending indefinitely. The question does not refer to actual value, either past, present, or future; to the query "Are Douris' vase paintings beautiful?" we should not think it a satisfactory answer to say (historically), "In the Augustan age men of taste derived value from them," or (sociologically), "At present most cultivated individuals who study them find them charming," or (prophetically), "It is probable, ten years hence, that 0.01 per centum of the population of the earth will actually enjoy them." These propositions only indicate that Douris' vase paintings were beautiful for the Augustan aristocrats, that they are beautiful now for cultured individuals, and that probably they will be beautiful in the future for a certain select proportion of mankind—for the uncommon, if not for the common man. But none of these tell us what we really wish to know: given the fixed character of the vase paintings and given the more loosely fixed character of the "cultured human being," with reference to a future of indefinite extent is it probable that if the object and organism form a relational contexture pleasantness will occur therein as a consequence? Only if the answer to this compound question is affirmative do we feel that the other has been answered. What we wish to know, in other words, is whether Douris' work "has" potential positive value for a certain type organism, not whether it "had," "has," or "will have" actual value for exemplars of that type organism. The difference lies in the fact that the potential value question embodies the word *if,* the actual value questions do not. That 0.01 per centum of the population *will* become Douris-minded is irrelevant to our inquiry; all we demand to be informed about are the probable affective consequences *if* a certain type of individual pays attention to Douris' artistry. It is true, however, that the facts that the painter *was* appreciated by indi-

viduals of the type in ancient times and that he *is* currently appreciated *provide data to support* an affirmation that he will be appreciated in the future if and when . . . and so on; that is, that Douris' vase paintings "have" potential positive terminal value for . . . and so on—that is that they are beautiful in the general sense implied by the original question.

Since, as we have seen, each component of a compound proposition asserting potential value is itself a factual proposition, the whole is theoretically subject to investigation and confirmation or disproof by empirical scientific procedures. And since a proposition attributing or denying beauty to an object is, as now appears, a potential value proposition, it too is theoretically open to scientific investigation.

I use the word *theoretically* advisedly. With the present resources of science, most aesthetic questions are, by reason of their extreme complexity, not susceptible of any but the broadest answers *practically*. Not only are aesthetic objects, as we have seen, of almost incredible complexity and vagueness, but the "cultured man" to whom we implicitly refer our aesthetic standards is an abstraction to which hardly more than an approach at a usable definition has been made. Nor can one be made until the sciences of anthropology, sociology, and social psychology are extended and greatly perfected.

In the meantime the critic plays his part. The critic's function, put broadly, is to answer the question, "Is this work of art beautiful? And if so, in what degree by comparison with others?" The critic is an intuitive scientist, using the laboratory of his own reactions. Naturally this provides reliable data only in so far as he is, in his own cultural character, a fair sample of "cultured man" or —as is the case, acknowledged or unacknowledged, in much of expressed criticism—of "Western cultured man." The critic must by inheritance, environment, and training embody the universal type, and in so far as he does not he must make appropriate allowance for his departure in his aesthetic judgments. He samples the object, not once but several times. He endeavors to eliminate bias and other irrelevant factors. He finds that he receives immediate pleasure. By implicit behavior he projects his reactions into the future; still he is pleased. The degree is sufficient to justify the adjective.

He expands his microcosmic affective reaction to the macrocosmic scale and pronounces the work to be beautiful.

It may be noted that what the critic bases his judgment on is not merely the potential terminal value of a work of art with reference to a certain time, but its potential terminal value with reference to an indefinite extent of time—not its probable value when it is next heard or seen, but its compound and average value upon all occasions of its being seen or heard, at least as long as "cultured man" can be expected to continue recognizably similar to the present and historical type—in other words, the critic is concerned to estimate the *aggregate* potential terminal value of a work of art. So, too, judgment of "greatness" in an artist is a function of this same concept, for "greatness" consists in the genius requisite to the production of works "having" great aggregate potential terminal value. Homer and Euclid, Shakespeare and Mozart deserve the appellation of "great" just because it is difficult to imagine a time in the future history of the world, so long as men shall be even nearly as they are, when for the *cognoscenti* the creations which pass current as their handiwork would not continue to provide pleasures, high in degree and in a manner of a singular equableness and purity—that is, almost all critics render the judgment that the legacies known under these noble names "have" unequaled aggregate potential positive terminal value. (It is just by communion with and constant reference to those works of art which have proven to have aesthetic meaning to men in all ages that the critic becomes qualified in his person to represent the pattern, "cultured man," and is enabled to set the productions he is judging in their just perspective.)

If another critic comes to an opposite conclusion as to the beauty of (ostensibly) the same art object, though both critics may be right in their judgments *for themselves,* there is a discrepancy in their functional judgments, the root of which probably lies in one or all of the following: (a) one or both critics are not fair samples of "cultured man" (as Tolstoi was not, in *What Is Art?*); (b) they have not reacted to the same or a sufficiently similar object—which is altogether possible even though they have read the same pages, looked at the same picture, or sat attentively in the same concert hall; or (c) though correctly gauging their own present affective reactions,

one or both have not correctly foreseen that of "cultured man" over an extended future time—for instance, one has judged the art object, undeniably pleasure-producing, to "have" on that account permanent value, when as a matter of fact, because of the topical nature of its aesthetic meanings, it "has" only transient value. The latter is the hardest part of the critics' task. Though agreeing in their representation of "cultured man," and though agreeing in a positive affective reaction, yet they may differ or both fail in predicting potential reaction for an indefinite time to come. The result is either the denial or underascription of beauty or aesthetic worth to that which in reality "has" it potentially in a high degree (I should cite as possible examples the Greek numismatic art, the poetry of Quintus Smyrnaeus, the music of Loeillet, Telemann, Spohr, Cherubini, Reicha, Kuhlau, and Loewe, the novels of George Meredith), or, what is far more frequent, the ascription of beauty or aesthetic worth to that which is of but ephemeral value, however real may be its value at the moment of judging. (Examples of the latter are legion and it were an act of charity to cite none.)

The surprising thing under these circumstances—of relying on the almost wholly intuitive judgment of the critic, while awaiting the advent of scientific method in the field of aesthetic criticism—is not the divarication but, by and large, the great uniformity of critical judgment. This uniformity, when it extends over successive ages and diverse cultures, is the best warrant we have at present for the truth of a whole body of propositions asserting the aesthetic worth (or beauty) of what are thereby known as The Classics. (A classic is a handclasp through which the centuries touch one another.) Many of these propositions appear of such stability that it would be considered most improbable that even rigorous science, substituting for the intuitive critic, would change them. For example, as we have just intimated, it is hardly to be doubted that, so long as "cultured man" retains even a tenuous resemblance to the present ideal, Homer will be found beautiful. In that lies his universality as a classic. Because in all ages for "cultured man" Homer has "had" value, and because he "has" for us, we judge that he "has" potential value to a future of uncertain extent. Further our question may not go; to press on insatiate to some *absolute beauty* is to ascend into the realm of nebulous illusion.

In adopting—when we ask the general aesthetic question—the conception of "cultured man" as the organism whom *beauty* is *beauty for,* we are simplifying the problem by reducing it to one variable. The organism has been made ideally receptive, and constant in this. The truth of our judgment of beauty (of potential value) is made to rest on the probability of the stimulation characteristics of the object. If it is high, high value will ensue; if low, low value. We exchange one variable (the idiosyncratical observer) for an ideal constant ("cultured man"), so that our aesthetic judgment may be made a function of the remaining variable (the stimulus possibilities of the object), which thereby becomes independent. Without this simplifying generalization the basic question of aesthetics—whether or not *beauty* may properly be predicated of an object—would hardly be capable of definitive, mutually acceptable, or even meaningful answer.

Put more succinctly, then, the critic's task (that of a future science of aesthetics) is to infer from past recorded experience and the given datum of present affectivity in the presence of a work of art the probability of the work's "possessing" a certain aggregate potentiality of value within a conventionally recognized cultural universe of discourse.

The definition of what constitutes a *work of art* is, like *beauty,* complex also and not easy to arrive at. Our present purpose does not permit an extended discussion of the matter, but the following general and preliminary definition may be suggested: a *work of art* is any object constructed by the principles of selection or arrangement or both and designed either primarily, or independently secondarily, to induce immediate positive affectivity in a type organism. This definition covers objects composed of elements selected but not arranged (for example, the elements in a photographic study), or arranged but not selected (a display of a random lot of flowers), or both (the colors applied to a painting or the notes in a canon); it covers objects designed for no utility (the canon or the painting), or those designed for utility but with an independent secondary purpose of pleasing immediately (furniture of fine workmanship). It excludes objects which are in no way designed to give immediate pleasure, but which do so, if at all, only fortuitously (the strategic pattern of Napoleon's first Italian cam-

paign, which though constituted by the principles of selection and arrangement and assuredly a thing of beauty for those capable of following it, still is by the definition excluded from the class *work of art* since it was by no means designed with a purpose of giving immediate pleasure); and it excludes objects designed to please only an individual (often the creator himself, as apparently in some incomprehensible modern poetry) and not a type organism. (The effect of this latter condition is to insist that the art process is a form of communication. Art which communicates nothing is not art, any more than it is meaningful. However, the type organism may have as few as two members; for example, poetry understandable only to the poet and his beloved may be called art—of small universality and hence of low grade, to be sure.)

Once again, as in our former warnings on the matter, it must not be supposed that the design (purpose, intention) of pleasing which is implied by the definition is necessarily *conscious* to the artist. Works of art may quite well be the product of a subconscious design to occasion immediate positive affectivity—for example, much or most of primitive art, as being intended consciously and primarily, if not exclusively, for magical or ritualistic usefulness: the bas-reliefs of Aurignacian cave walls, Kwakiutl totem poles, Dahomey wood sculpture, Vanikoro masks, Maori jadite tikis, Navajo sand painting, to cite at random.

Of another characteristic, sometimes supposed to be necessary to the calling of an object a work of art—namely, relative permanency —our definition makes no mention. This I do not regard as a proper criterion. The Navajo sand paintings are not designed to outlast the day, but they none the less have every right to be called primitive art. A cook's culinary masterpiece, even though it be consumed within the hour, has all the required characteristics and may as truly be called art, albeit of low degree, during the brief period of its florescence as the antique table or woven basket which may outlast a thousand years. If the requirement of *permanency* be superadded to the definition, it simply occasions a gratuitous difficulty—agreement upon the length of time to be considered as designated by the term.

From the point of view of logic the principal consequence of the foregoing synopsis of the field of aesthetic value is, perhaps, to deny

any independent status to the so-called *judgment of taste.* This type of judgment has historically been interpreted, and is interpreted today by several influential schools of philosophy, to be of a kind radically different from judgments of fact and therefore to require a different treatment, often supposedly of a non-rational nature. A judgment of taste is, however, a judgment of value, differing if at all only in being based on a more individual standpoint. But value —as it has been one of the principal aims of this work to establish —is a fact, having equal status with any other type of fact in the universe as known through experience. A judgment of value, therefore, and hence a judgment of taste, is but a particular species of judgment of fact. This being so, aesthetic values are open to scientific investigation. To hold the contrary is to commit in aesthetics an error analogous to that we have discussed in the chapters on ethics. The pernicious effect of this ethical opinion is to deny the use and aid in the field of moral values of man's most powerful heuristic instrument, empirical science, and to relegate moral questions—questions concerning social behavior—to the realm of the irrational. The harm which history shows to have followed the varied applications of this mistaken principle has been incalculable. The harm which follows from the analogous error in aesthetics, while perhaps not of a parallel practical import, is yet as great in distorting abstract human knowledge and in preventing that grand unification which is the ideal of man's intellectual endeavors.

We may conclude this brief discussion of aesthetic value with a summary consideration of three traditional problems: (1) If beauty lies in the pleasure accompanying the act of beholding, then when the object is seen or heard it may be beautiful, but the moment seeing or hearing ceases its beauty vanishes. Is it not just a little absurd to make of *beauty,* which common sense certainly thinks of as a fairly permanent characteristic of some objects, a sort of jack-in-the-box quality which pops out at the convenience of the beholder? *Answer.* The situation is the same with regard to any type of value. It is dealt with by a consideration of the difference between actual and potential value. No object *has* value, aesthetic or otherwise. When an object is forming part of a stimulus-response contexture, value is actualized. When the object is not (and at such times, incidentally, even the object's existence is a matter of infer-

ence), then the value which it has helped to actualize in the past is considered inductively to be a potentiality of that object with reference to a certain organism. It is only a loose and misleading figure of speech to say that the object, seen or unseen, "is" beautiful or "has" beauty. For convenience, however, we may say guardedly: the seen (and smelled?) rose is *beautiful;* unseen (and unsmelled?) it is *potentially beautiful.*

(2) A distinction is commonly drawn between true and false aesthetic appreciation. The connoisseur is said to appreciate a work of art truly; the vulgar, if they appreciate it at all, to do so falsely. But if appreciation is only the sensing of pleasure, how can the one be any more false than the other? *Answer.* We call upon our distinction of instrumental and terminal value. False appreciation of art is the receiving of instrumental value from an object which was intended to give terminal value. The connoisseur experiences immediate positive value from the sequence of the notes, the alternation of dissonance and resolving concord, the polyphonic structure, the canonical entries, the timbres of the instruments, the fidelity of interpretation, and so on; the vulgar are imperceptive to all this; the value which they experience is instrumental—in the string quartet as an intermediate means—to the construction of a pretty story in their own imaginations, to a restful reverie about the days of long-lost youth, to the pleasures of pride in this evidence of the town's cultural advancement and their own conspicuous presence in the auditorium, to agreeable observation of the effect (perhaps negative) the music is having on their neighbors—in short, any kind of value in the music as an intermediate, instead of as a last means, as the poor composer intended.

(3) The Problem of Tragedy. If beauty is pleasure, how can cultured individuals find (as undeniably they do find) beauty, and even the greatest beauty, in that which gives pain, as tragedy does —tragedy in music, in painting, in the epic, the novel, or the drama? *Answer.* Beauty, like all forms of positive value, is pleasantness; but the opposite of pleasantness, we may recall, is not pain but unpleasantness. There is no reason, therefore, why pain and pleasantness should not be conjoined, and often, as experience indicates, they are so. It is simply an observed fact of human nature (human behavior patterns) that certain mild forms of pain occasion pleasant-

ness, sometimes in the most exalted degree. One important form of pleasant pain is that induced by the artificial situations (arrangements and selections of elements) of works of art. A large proportion of the pleasantness of represented tragedy is no doubt due, as Aristotle tells us, to the emotional relief of *catharsis*. (Let the stage or narrative tragedy become real, however, and all pleasantness changes violently to its opposite.) The venerable Problem of Tragedy is therefore a pseudo-problem, based simply and solely on the persistent and careless error of identifying pain with unpleasantness.

If aesthetic value is roughly coextensive with terminal value, then *economic value* is correspondingly so with instrumental value. However, just as we have seen that specifically aesthetic values are differentiated within the broader field of terminal values by more or less arbitrary terminological criteria, so, to continue the parallel, economic values are differentiated terminologically within the broader field of instrumental values. In neither case is it easy, or even possible, to draw the line of demarcation; nor, consonant with the purposes of this essay, is it necessary, for the essential features of the matter are, as stated, that the one *is* a species of terminal and the other of instrumental value. That established, their factual nature, their relativity, and their accessibility to operational verification follow logically; the finer distinctions can be sought out in researches devoted especially to that end.

The basis for the claim that economic value is a species of instrumental value is that no object is considered to possess economic value unless it is believed to serve some purpose, to be useful in realizing some "end," to further some human satisfaction—in short, to have utility. Conversely, economic value is not predicated of any object which is regarded as useless, good for nothing—in short, lacking in all utility.

But reaction to an object in its supposed character of being an intermediate means to a valued last means is the necessary and sufficient condition to the occurrence of instrumental value. And for an object to have utility signifies that it is as a matter of fact an intermediate means toward the realization of some last means which "has" prior value. Hence when economic value is constituted

by the affective reaction of an organism toward that which is believed to have utility, the necessary and sufficient condition to instrumental value is also realized. Economic value, therefore, appears to be a species of instrumental value.

But instrumental value and economic value are evidently not synonymous. For one thing all the ethical values are, as we have seen, forms of instrumental value. An act is valued for its rightness, for instance, in that it is thought probable that it is an intermediate means to the realization of a last means to positive affectivity. The difference between the ethical and the economic cannot be supposed to lie in the fact that the former is based on actions and the latter on tangible objects, for some actions "have" economic value, for example manual labor, and economic value attaches to many intangible objects, for instance a knowledge of chemistry. Indeed, the same action may "have" both economic and ethical value; thus the actions of the burglar may be reacted to in either their ethical or their economic aspect.

Nor is the one value necessarily a consequence of the other. In the preceding example it might be thought that the burglar's actions are considered of negative ethical value because they are of negative economic value. There is that connexion, and no doubt in that lies a large part of the reason for society's affective response, but not the whole reason, for the actions of the burglar would be said to have negative ethical value apart from all economic consequences, in that, for example, burglary increases the probability of murder, which though it too may have its economic aspects is primarily disvalued for its own sake. (Hence, as may have been surmised, murder, like other morally bad behavior, is in the broader sense unaesthetic; it occasions immediate disvalue; in a more than metaphorical sense, murder is ugly.) Nor, obviously, are economic values dependent on ethical. Many actions may "have" positive economic value and yet be ethically reprehensible—the fundamental reason why the *laissez faire* system, with its determination of the material interests of society under the driving power of the uninhibited "profit motive," is radically insufficient to the equitable ordering of the commonwealth.

Secondly, economic value is not synonymous with instrumental value because there evidently exist objects which "have" the latter

but not the former. My personal toothbrush, for instance, "has" for me a considerable degree of instrumental value but it would not ordinarily be said to "have" economic value. Learning to read Greek "has" for most individuals no economic value. It "has" nevertheless instrumental value, for it enables those who master its not inconsiderable difficulties to find unmediated enjoyment in the world's richest treasury of literature.

What then *are* the criteria which distinguish specifically economic values within the broader field of instrumental values? At a venture I should say that economic value has to do with objects and actions in so far as they affect the production, distribution, or exchange of wealth. *Wealth* is the class of all those objects which are actual or potential means to value. (Thus wealth includes such intangible objects as industrial skills, literacy, musical artistry, and so on. A nation is the more *wealthy* if it possesses these things than if it does not. Likewise, unmined minerals are a part of wealth.) My toothbrush is part of the national wealth; for it is an intermediate means to value, the satisfaction namely that I take in having clean teeth. The satisfaction I feel in the possession of my toothbrush is not, however, economic value, for my toothbrush is not an object which affects (is a means to) the production, distribution, or exchange of wealth. The satisfaction I might feel in the raw materials of a toothbrush or in the industrial machinery or skills necessary to its manufacture would constitute economic value. Or consider the case of a painting. It is a part of wealth, itself; but the immediate pleasantness felt in its contemplation is aesthetic, not economic, for it is not being considered as an object which is a means to other wealth. However, when the painting is valued as a means to the procurement of money or any other wealth-object, then it is the object of economic valuation.

Ethical value, which is also a species under the genus instrumental value, deals, as we have had occasion to see, with an entirely different sort of object. The object of ethical valuation is behavior which affects other individuals in such a manner as to induce behavior on their part which in turn affects the original behaving organism. Ethical values appear to involve this socially reflexive aspect; economic values do not necessarily. The farmer's act of ploughing "has" economic value (in that it is a means to the produc-

tion of wealth) whether or not any other person is affected by it; but in so far as no other person is affected (the farmer raising corn, say, strictly for his own consumption) the act "has" no ethical value whatever, positive or negative.

If this be the nature of *economic value*, it would appear that the concept is hardly applicable to animals or other organisms. For no other organisms than man give apparent evidence of valuing any objects or actions as being means to the production, distribution, or exchange of wealth (wealth *for* the particular organism). Exchange of wealth is, indeed, an almost or wholly non-existent procedure in any subhuman organic level. Distribution of wealth may be thought to take place in rudimentary ways, as when a bird stuffs worms down the gaping throats of her young. Production of wealth takes place among the less complex organisms, no doubt; but no organism gives evidence of valuing any object as a means to such production. The existence of economic value on any of the non-human evolutionary levels is therefore to be considered doubtful, but with respect to those wonderful societies, the bees and the ants, this statement may perhaps best be regarded as tentative for the present.

Such may be proffered as a provisory delineation of the specific nature of *economic value* but, as was implied above, the important consideration is not so much the differentia of the concept as the genus. This is because its differentia is both arbitrary and vague, whereas the genus (instrumental value) is essential and precise. In these respects, as suggested, economic value is to instrumental value as beauty is to terminal value. From the standpoint of axiological understanding the more interesting aspects of each universal are its fundamental relations with other forms of instrumental and terminal value, respectively, and the relations of both to value in general.

Now, as has already been stated, *economic value* implies a belief in the valued object's *utility*. Further clarification of the nature of the former depends upon a more precise examination of the latter. Let us then look at *utility* more closely.

Wealth, we have suggested, is the class of all those objects which, for a given organism, are actual or potential, intermediate or last, means to value. Within this class some objects are said to possess utility, others not. Utility (as the word itself implies) is an attribute

of all those objects which, with reference to the given organism, are useful as means to the organism's satisfactions. But "means" here must be understood as "intermediate means," for we do not predicate *utility* of objects which are last means to satisfaction. Indeed, we draw a sharp distinction, as in the phrase, "It has utility as well as beauty." Thus fine silverware may have utility as well as beauty; but it may also have either one without the other. Or of a perfume for the bath—we acknowledge its immediate pleasantness (beauty?) while bathing, but we deny it any utility. Last means, *qua* last means, have no utility. (The discriminatory usefulness of the term *last means* rests on this exclusion.) Accordingly *utility* is independent of an object's being a last means but dependent on its being an intermediate means.

Furthermore, in its character as an intermediate means the object of which utility is predicated must lead causally to a consequent object "having" terminal value, actual or potential, that is, to an object which is a last means to affectivity. The causal connexion may, however, be remote; the first intermediate means may lead to another and that to a third and so on. But at the end of every such sequence must lie a last means—or there is no utility. We decline to predicate utility (or disutility) of anything, no matter what it leads to, unless eventually it promotes (or hinders) some satisfaction of the organism. Here, as everywhere else in axiology, our motto is *respice finem*. This general dependence of utility upon terminal value is parallel to the more immediate dependence of instrumental value upon terminal value. This is the basic reason why aesthetics is to be looked upon as the supreme discipline in the realm of axiology, and ethics, economics, and truth (as we shall later see reason to surmise) as secondary.

It is evident that *utility*, as just defined, is sufficiently broad as to be predicable of the objects of ethical valuation. For such objects —honesty, say, or courtesy—are plainly objects which, with reference to a particular organism, are useful as intermediate means to the organism's satisfactions. Indeed, ethical objects (actions) are precisely those which possess a certain sort of utility—that "socially reflexive" type of utility to which reference was made a short time ago. (They may also, of course, "possess" beauty if reacted to "for their own sakes.")

Now economic value is not dependent on this sort of utility. We do not predicate economic value of honest actions or courteous behavior—not, at least, unless on certain special occasions they turn out to have "cash value." The general character *utility,* therefore, must be a genus of which there are at least two species—ethical and economic utility.

Economic utility may be defined as a species of the genus *utility,* the differentia being that the object of which it is predicated is, actually or potentially, an intermediate means to the production, distribution, or exchange of objects included in the denotation of *wealth.* ("Object" here means as usual any combination of experiential elements which may become a stimulus to an organism, and hence the term includes actions and so-called intangible objects.)

Evidently, then, there are at least three subspecies of *utility:* production, distribution, and exchange economic utility. What constitutes *production utility* is not seemingly difficult to understand. The term may properly be predicated of an object, with reference to a particular organism, when that object, because of its nature, the environment in which it exists, and the uses to which it may be put, is an intermediate means to the actualization of wealth (wealth for that organism). Raw materials, machines, industrial techniques, literacy, stable government are examples of objects having a greater or lesser degree of production utility.

Equally open to comprehension is *distribution utility.* Examples may provide a sufficient explanation: the term is predicable, with minor variations, of ships, trains, wage scales, certain contractual agreements, laws of inheritance, currency and coinage, and so on. (Evidently the varieties in this subspecies would be generally divided into two classes indicated by the senses of the words *transportation* and *apportionment.*)

Quite on the contrary the meaning, or at any rate the basis, of *exchange utility* is not at all evident. (This fact is illustrated by the great bulk of space occupied by this and closely related topics in the classical treatises on economics.) What are the factors necessary to confer upon an object exchange utility? At first essay one might reply: simply that the object be a means to producing an exchange of wealth. But besides being vague, this proposition can hardly be true. Take for example a pistol. If, under certain circum-

stances, I press it against the ribs of a well-to-do citizen, it suddenly acquires the characteristic of causing an exchange of wealth: his gold watch will find its way into my pocket. But surely such a transfer of wealth is not what is intended by the word *exchange* when used in an economic sense. It may be said that the example is faulty in that the well-to-do citizen receives nothing in return. Actually he does; in return for his watch he receives the sparing of his life. But even if, upon taking his watch, I were to put one hundred dollars into his hand, the transaction would not be thought of as an economic exchange.

However, the one hundred dollars, or indeed the pistol, will under other circumstances procure me the burgher's gold watch in an unexceptionably economic manner. I give him the pistol, he gives me the watch. What is different in this case? Just this—that he wants the pistol more than he does the watch: for him the object having-pistol-but-not-having-watch "has" more actual positive value than the incompatible object having-watch-but-not-having-pistol. (It may, of course, "have" at the same time less of potential value.)

But, it may be objected, this is not really different from the former case, for then he wanted his life spared more than he did the retention of his watch. There is even here a voluntary exchange, and that too of objects of wealth—a gold watch and the preservation of his life. Here, though, is a sophistry; actually there is no exchange. I am not giving him anything that he has not already—his life, namely; he has nothing after the "transaction" that he did not have before it. It would be quite as fallacious were I to steal one hundred dollars from him and then claim that the buying of his watch with that same sum was an economic exchange.

We shall, therefore, qualify the latter term, the term under discussion, with the condition that it must pertain to objects no part of which was already in the possession of the recipients prior to the act of exchange. (1) This allows the term to exclude the exchange in which, with the aid of a loaded pistol, I demand the good burgher's watch and give him in return one hundred dollars. For here he is the recipient of the complex object one-hundred-dollars-with-life-spared. But part of this object—and the more material part too—was in his possession already. (2) On the other hand, it

obviously and rightly allows the inclusion of such cases as when a man, having made a partial payment on a house, completes the purchase. He is said to have bought a house; but it would be a mere quibble to say he has exchanged this latter sum of money for an object part of which was already in his possession and hence that the transaction, by our rule, is not economic.

Such being the general nature of economic exchange, an object has *exchange utility* for an organism when, under appropriate circumstances, it does or probably could cause an economic exchange to take place. More precisely, an object has *exchange utility* for an organism when (1) it is or probably would be, under appropriate circumstances, valued more highly by a second organism than an object which it possesses, and when (2) that second object is an object of wealth to the first organism—that is, when the second object is for the first organism an actual or potential, intermediate or last, means to value. ("Appropriate circumstances" are any which would actualize the condition, "If the second organism reacts to the first object. . . .")

To this definition there are several corollaries worthy of attention. (1) The nature of either object is indifferent so long as each bears to two organisms the stated affective relations. "Object," as usual, includes action, skill, agreement, advice, practice (a doctor's practice is an object which may have exchange utility), and so on. (2) No object has exchange utility if the implied time reference lies beyond the utmost life-expectancy of the possessing organism. This follows immediately from the condition that any object for which it would exchange must be an actual or potential means to value and the fact that a value-for relation cannot exist after the divagation of elements which is an organism's death. Thus the probability that a poem I have written, though of no exchange utility (according to the definition) now or during my probable lifetime, will "have" great value for cultured individuals in the twenty-first century confers no exchange utility upon it—for me. (Such a state of affairs would, however, give my poem potential exchange utility for the fortunate possessor among our epigoni.) (3) That the second object may be more valued by the first organism than its own object, either now or at any future time, is not essential to the definition. Thus a person may own an object he "would not part with for the

world": that is, if his statement is taken at its face value, there exists no object, actual or potential, the possession of which would give him more satisfaction than that he finds in the retention of his treasure. None the less it has exchange utility, for *if* offered for exchange it would doubtless fulfill the conditions required by the definition. (4) To avoid confusion the definition has been phrased only in the present and future tenses. By obvious changes in the verbs it can be made applicable to past actual or potential exchange utility.

The next step in our argument is to note, parallel to what we have previously seen in the case of *right* and several other terms, that the relation of *utility* in all its forms, though constituted in part by certain affective reactions, is not itself dependent for its existence on the axiological or epistemological responses of any organism. *Rightness* is altogether dependent on the affective preferences of the organism with respect to which the concept is given meaning; but any particular action is or is not (probably) *right* regardless of what the organism believes or feels about it. In other words, the affective nature of the organism determines the meaning which the universal *right-for-it* shall have, but whether that universal may be truly predicated of a particular action is a matter of logic absolutely independent of the organism's judgment or affective response.

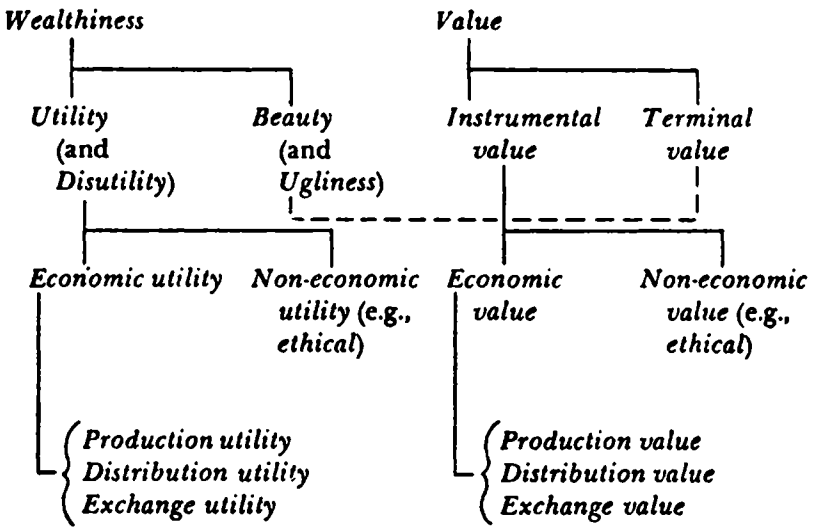
Now *utility* in all its forms (and as we have seen *rightness,* as ethical utility, is one) is just such a factual, non-cognitive, and non-affective relation. An object either is or is not actually or potentially useful in the promotion of some organism's satisfaction. Neither the organism's belief (right, wrong, or irrelevant) nor its feeling (favorable, unfavorable, or indifferent) has any effect on the fact. To take *exchange utility,* as the species which we have been at most pains to define—if an object does fulfill the specified conditions, then it does have exchange utility; the predicability of the universal is not altered or influenced either by the belief or disbelief of the organism *that* the object has such utility or by the pleasantness or unpleasantness which the organism experiences *in* its utility.

Now *value* we defined basically as affectivity occurring in the relational contexture determined by the reaction of an organism to

a stimulus object. But *utility*, though ultimately dependent on some affectivities, is not itself an affectivity. It follows that *utility* is not a *value*. It is therefore not necessarily true that because an object has *economic utility* it is implied that it "has" *economic value*.

What then, the reader may impatiently ask, *is* the connexion between utility and economic value? Have we struggled all this way through the difficulties surrounding the former only to come out as far as ever from an understanding of the latter? On the contrary, our problem is all but solved; the connexion is almost evident and a concise exposition should now be sufficient to clear up the whole question of the essential nature of *economic value*.

Consider the following parallel conceptual hierarchies:



Wealthiness expresses the most general relationship objects can have to some organism's affective responses. *Wealthiness*—the character in the true predication of which an object is a part of *wealth*—cannot exist without *value* (of some sort), for wealthiness is precisely the character of being a means, last or intermediate, to value, actual or potential, terminal or instrumental, direct or indirect. But some objects depend for their inclusion in the class of *wealth* on their forming part of a stimulus-response contexture while others may be included although they themselves may never be reacted to by any organism.

The former objects are those "having" terminal value. The character of *beauty* is not predicable of an object unless it is a last means, actual or potential, to positive value, that is, unless the object "has" terminal value. To "be" beautiful (in the broader, not conventionally delimited sense) is then practically synonymous with, to "have" terminal value.

The latter objects are those having *utility*. As we have just seen, utility is sufficient to subsume an object under *wealth* but it depends not at all upon the reaction of an organism to the object of which utility is predicated. The reason for the distinction between these two subclasses lies in the nature of instrumental as contrasted with terminal value: if an object, which would otherwise be beautiful, is not reacted to and has not even the potentiality of being reacted to, then it simply *is* and has no value status whatever; on the contrary, if an object which is actually or potentially a means to some other value object is itself not, nor has even the potentiality of being, reacted to, that fact does not rob it of all value status. For although it can then "have" no instrumental value, its utility remains unimpaired and so qualifies it for inclusion among the denotata of *wealth*.

An object "acquires" *instrumental value* when it is valued, actually or potentially, by an organism in its character of being an intermediate means—that is, because of its *utility*. It follows that an object "acquires" *economic value* when it is valued, actually or potentially, by an organism in its character of being an intermediate means, proximately to the production, distribution, or exchange of wealth, ultimately of course to the actualization of value—that is, because of its *economic utility*.

This then is the nature of the concept under investigation—*economic value*. Obviously, as was suggested above, it and economic utility are mutually independent. For an object can have utility and not be reacted to in that character, and conversely an object can be reacted to in its believed character of having utility though actually it has none. In the latter case the object "has" for a certain organism *actual* economic value, but it has no economic utility and hence probably little or no *potential* economic value. If this seems a paradoxical usage of words, the impression may be dispelled by considering the answer a person suffering under such a

mistaken estimate of an object's utility would give to the question, "Why do you value this object?" The answer would be, "I value it because of the economic utility I believe it to have." But, by hypothesis, it has none. True, but until the owner can be convinced of that fact he will go right on deriving value from its possession; the utility may be illusory but the satisfaction he feels is not.

In the former instance, though it very frequently happens that an object has (as a matter of fact) economic utility for an organism but "has" for that organism no *actual* economic value, it is rarely the case that it should then be lacking also in *potential* economic value. For the latter is constituted when it is probable that *if* the organism reacts to the object in its character of having economic utility, it will feel affectivity as a consequence. Though possible, such a lack is so extremely rare that for all practical purposes it may as well be considered that whenever, with reference to a certain time and a particular organism, an object has potential economic utility it also "has" potential economic value.

Though *believed* utility is a necessary condition to instrumental and hence to economic value, it is by no means a sufficient condition. For value is affectivity and if an organism is not affected by the believed fact of an object's utility, then no matter what the utility, believed or actual, there is actualized no instrumental value. I believe a knowledge of Hungarian to have the utility of enabling me to read the complete works of Mor Jokai, but since I am not desirous of reading Jokai's complete works, as far as this side of its utility is concerned, Hungarian "has" for me not the slightest instrumental value. (Literally, as we have previously seen, it "has" indifference instrumental value—our usual meaning in common speech when we say "no value.") However, though this separation is possible logically, it is not very likely practically; for if an organism *believes* an object will or would lead to some valuable result, it is almost inevitable psychologically that the object will be valued as leading to that valued result. It would be difficult for an individual to assert truly, "I believe money will buy some things I very much want, but nevertheless money has for me no value whatever." In spite of these psychological considerations, however, the thesis is valid: believed utility is not a sufficient condition to instrumental

value—because believed utility depends on intellectual assent only, whereas instrumental value requires a logically separate affective reaction in addition.

Nor, for similar reasons, is *actual* utility a sufficient condition to instrumental and hence to economic value. There lies on the street, face down and in full view before an indigent but cultured passerby, a ticket to the symphony so often instanced in the earlier pages of this inquiry; the cultured passerby delights in concerts and he would be happy in attending this one; he sees the ticket but makes no move to pick it up. Why? Because not realizing its actual utility, not recognizing it as an intermediate means to a last means (the symphony) to pleasure, it "has" for him no instrumental value (and certainly no terminal value, either). Therefore there is no affective factor to overbalance the negative affectivity associated with stooping over to pick up the article. The ticket, because of its actual utility, "has" for this unfortunate person potential instrumental value but, alas, he knows it not.

Similar considerations are of particular importance in the field of economic exchange. For the complex condition necessary (though not sufficient) for an exchange of wealth to occur is constituted in part by actual economic value. It is not constituted by the utility—not by the actual probable usefulness of an object, nor by its believed usefulness—but by an organism's affective response to the believed utility of the object. Take the case of two organisms, A and B, possessing two objects, a and b respectively. The complex condition necessary to an economic exchange of these objects is: (1) that for A, b "has" greater actual value, terminal and instrumental (including economic) both considered, than "has" a; and (2) that for B, a "has" greater actual value than "has" b. This proposition may be symbolized roughly as follows:

$$A(b>a) \cdot B(a>b)$$

Exchange will then normally take place, since for both A and B the alternative in the problematic situation of taking the other's object and relinquishing his own is pleasanter than the alternative of retaining his own and foregoing the other's object. However, this complex condition, though necessary, is not sufficient for, among other obvious considerations, no exchange will take place, whatever their mutual desires, unless the two parties are in some kind of

physical propinquity such that exchange is practicable. Or again, no exchange will take place, even if this condition is met, if either object entails any collateral object, the value of which reverses either of the affective relationships of the complex condition. Perhaps in a given instance for A, $b>a$; but b entails c, a troublesome behavior sequence (excessive labor, say), which "has" considerable actual negative value. Then if for A, $(b + c)<a$, he will prefer to keep what he now has and no exchange will take place.

Actual economic value enters into the determination of production and distribution behavior also. No one, for instance, will toil to produce a certain wealth object unless for him the actual (presently felt) value of that object, including its economic value, is greater than the value of any alternative object having the same time reference. Nor will anyone buy (exchange money for) a tool which is believed to have production utility unless for him the actual value, including production value, of that object is greater than the actual instrumental value of the money. (That we often spend our money "foolishly" in this and other ways is but to say that the relative actual values at the time of exchange turn out to have been disproportionate or even in reverse proportion to the then potential post-exchange values.)

Altogether then, economic occurrences are determined by actual, not by potential values. For they are the effects of behavior, and the stimuli which determine behavior are those which operate in the same specious present containing the initiation of the behavior. An individual's economic decision with respect to an object takes into account its believed actual and potential utility but the factors which determine his decision are the actual values he now feels in his reactions to those believed utilities. Shall I spend one dollar for object z? An answer is not provided by the potential value of the dollar; the pleasantness which I may feel tomorrow in possessing it has as yet no existence and hence cannot influence my behavior. The pleasantness that does exist and hence does operate to determine my decision is (1) that which I am aware of in considering the dollar's present economic exchange utility and (2) that which I am aware of in considering the dollar's probable economic exchange utility through an indefinite time in the future. The sum of these is its actual economic exchange value for me.

Now with regard to z, which as yet I possess only in symbolical form, the pleasantness that exists and cooperates to determine my decision is that which I am aware of in considering (3) the possessed object "for its own sake" at present and for an indefinite time in the future and (4) the possessed object as an instrumental means to various other valued objects at present and for an indefinite time in the future. The former is z's actual indirect positive terminal value for me, the latter its actual indirect positive instrumental value. From these are deducted any felt negative values in the object. The sum may be called the total actual indirect value of z to myself. If it is greater than the dollar's actual economic exchange value (I am assuming for brevity that this is the dollar's total value), I thereby decide to buy the object. Whether I *can* buy it, however, depends on the relative values of the two for the owner of z. For him the dollar must "have" the greater total value or he will have no motive to make an economic exchange.

It is evident that as the exchange utility of an object depends on its value for others and exchange value depends on believed exchange utility, exchange value can exist only in an actual or supposed social situation. It is a form of value affected by others' believed valuations of the object in question. It thus has a socially reflexive character which it is instructive to compare with that of the ethical value forms.

It may be helpful in connexion with these distinctions to recall Adam Smith's terms, *value in use* and *value in exchange.* The former, in the present axiological system, may embrace either terminal or instrumental value or both. My used toothbrush "has" instrumental value (for me but hardly for others). My copy of *Buch der Lieder* "has" terminal value (for me and possibly for others). My gold watch "has" both (for me and probably for others). The utility of the watch and the toothbrush are obvious. We do not, however, ascribe utility to Heine or to the watch in respect to the fact that they occasion me immediate pleasure. Some objects are valued ("have" value in use) by very reason of their lack of utility: sport, for instance, if enjoyed as such and not indulged in as a means specifically to health or wealth. *Value in exchange,* however, can in the present axiological system be only instrumental value,

and that of the special variety whose elucidation has been the object of the preceding pages.

The kind of value associated with (predicated of) any particular object is Protean in its transformations. For instance, if I decide to sell, or even consider selling, my *Buch der Lieder* and I feel affectivity in thinking of it as money-producing, it at once "acquires" instrumental and economic value. Or again, the miser is the type of individual for whom money, normally the occasion solely for economic value, has become the object term in a persistent or recurrent contexture suffused with terminal value, i.e., the miser has come (through a sort of sinister version of the "means to end mutation") to value money "for its own sake," as a last instead of an intermediate means.

Economics as a science is interested in both actual and potential economic value (and of course the corresponding utilities, as being generally correlative). The former governs present occurrences in the production, distribution, and exchange of wealth (goods and services); the latter provides the basis for prediction of the economic future. The actual economic value of any object for any organism is ascertained by observing the manner in which the organism behaves with respect to that object. In particular the behavior from which economic exchange value is inferred and measured is the acceptance by the organism, in exchange for his object, of a certain amount of another, standard and arbitrary, object. The latter in all civilized communities is, of course, money, and the standard organism is the body politic, or at any rate that portion of it which enters the market place. Potential economic value is similarly inferred from behavior, but the factors influencing probable "exchange behavior" are so numerous that we shall omit their mention here. This topic is the subject of a large and important part of any treatise on general economic theory.

Suffice it to assert in conclusion our standard prescript—that the difficulties of determining the truth or falsity of any proposition concerning economic value or utility are due to the complexity of the factors involved and not at all to some supposedly unique character in the concepts. Whether or not an object "has" for a given organism economic utility or value, actual or potential, and to what

relative degree, are matter-of-fact questions as amenable to the regular procedures of applied scientific method as any other questions of fact.

(The reader will by now have realized that the terms *economic utility* and *economic value* are in the foregoing section defined and developed in ways in certain respects significantly different from the usages of classical economic theory. This fact arises, it is to be hoped, not from the author's ignorance of the fundamentals of classical economic theory, but simply as a result of the attempt to extend consistently into this field the implications following from the hedonistic postulates adopted at the outset of the present essay. In so far as those postulates have exhibited—and will exhibit in the sequel—a potentiality for conferring an explanatory unity upon all the main parts of the axiological field, just to that extent is the desirability suggested of a basic reexamination and possible modification of the classical terminology of economics in the interests of clarity, consistency, psychological warrant, and significant interconnexion with the terminology of related disciplines.)

Although *love* is certainly a very complex relationship, its essence seems to lie in the finding of a considerable—sometimes an intense—degree of terminal value "in" another person. (This hints perhaps at the real meaning of Kant's somewhat caliginous injunction to treat others as ends always, never as means, which translated into our hedonistic terminology becomes "to treat others always as last, never as intermediate means." Besides its narrow anthropocentric bias, the maxim is utterly impracticable if taken literally.) Depending on the degree of terminal value engendered, love runs the gamut from the most perfunctory good-will to a desolating passion. The peculiarity of love as a form of value is indicated by the fact that in the formula for, say, actual direct positive terminal value (xzP), in the love relation z is not an *object* merely but another *person*.

Mutual love is of an unique character axiologically. When two persons share the same ordinary value experience ("same" meaning actually, as we have seen, "closely similar") there are present in the stimulus-response relationships three terms: the two persons

(x_1 and x_2) and the object valued (z). The "sharing" of pleasure in, say, the same work of art may be represented thus:

$$(x_1zP) \cdot (x_2zP^1)$$

But when two persons are in love with one another, in some not too recondite sense z becomes x_2 for the first person and z becomes x_1 for the other, whence we have

$$(x_1x_2P) \cdot (x_1x_2P^1)$$

which may be taken as representing symbolically the peculiar intimacy, the introverted, self-sufficient happiness, of mutual affection —in its potential form looking forward and in its past actualized form as funded in grateful recollection, assuredly one of life's greatest aggregate terminal values.

Although not strictly consonant with the narrower usage of popular speech, *love* in the light of our analysis must be placed in the realm of the Beautiful, for it is constituted essentially by the occurrence of terminal value—occurring in the unique circumstances outlined above—and terminal value is the necessary and perhaps sufficient characteristic admitting to that realm. While we commonly distinguish between the pleasure-giving qualities of the beloved's physical beauty and the beauty of the beloved's character on the one hand and on the other of the love relation with the beloved, still it seems not inappropriate, in the broader sense previously defined, to regard the pleasures of that love relation as a part of the beauty of life.

And further, in so far as the lover and loved enhance one another's pleasure by a purposeful selection and arrangement of the behavioral elements of the love relation, to that extent we are justified in speaking of an *art of love*. That there is such an art—the *ars amatoria* of the ancients—is indubitable; indeed, it is unique as being the one among all the arts of man least acknowledged and least taught and the one most practiced and most mismanaged.

While most of those qualified to judge of such matters would probably grant that *good, beauty, economic utility,* and *love* depend in an essential manner upon value, it is by no means as generally accepted that in the last analysis *value* also determines *truth*. This, however, I believe to be the case for at least four reasons.

(1) Truth involves the use of universals. (It must; otherwise every particular of experience would needs have its own truth-term and truth as a system would be a totally useless duplication of the endless variety of experience.) Universals, I hold, are not given in experience but constructed. The given basis for the construction is similarity. That this cubical object is similar to that one is a part of the perceptual data of experience, but that the two have such a *degree* of similarity as to be included in the class *house* is not given. Every object in the world has some degree of similarity with every other and no two are identical (differing in spatial or temporal location if in nothing else). Within this indefinite range of likeness and unlikeness the boundaries of universals are set arbitrarily, the determining factors being the using organism's needs, wants, purposes, interests, convenience, and so on. If I decide to call this cubical object a house but that one not, it is solely because it suits my convenience so to do (including, of course, the convenience of being able to communicate with others through the instrumentality of conventional language symbols). At another time it may suit my convenience to call them both something else. Apart from any organism's affective interest each object is just what it is, with all its range of similarities and differences. Universals are organically created tools for dealing with the environment in ways which promote the organism's well-being, that is, positive value. Universals therefore, and hence *truth* in so far as truth is a function of universals, depend for their existence and their particular form upon *value*. (Similar considerations apply to those universals which are taken as categories within any system.)

(2) Truth is about objects. But objects are likewise constructions. I say, "This cubical object is a house." But what is "this cubical object"? It is itself a universal or class, the denotata of which are an indefinite number of temporally unique agglomerations of experiential elements, which agglomerations are qualitatively, quantitatively, and spatially only similar to one another (and sometimes quite dissimilar—for instance, myself when young and myself in gelid age), and which agglomerations severally include and exclude arbitrarily a certain selection of the momentary total of elements of experience (For example, does that cloud-object include that trailing wisp or not?—just as I please . . .). Now as in

the case of universals, what an organism chooses to regard as a separate object is dictated by the organism's axiological convenience. Though I am not "in the nature of things" an indefeasible object and never literally the same object two days in succession, either to myself or to others, yet it is ordinarily a convenient fiction so to regard myself and so to be regarded—except perhaps when the police are after me, in which case it may become convenient to emphasize my personal discerptibility and to pass today for another object than that which committed yesterday's crime. Since, then, objects are constructs determined by value, and since truth is not truth simply but truth about—induced from, tested by, and applied to—objects, once again *truth* is, at least in part, dependent on *value.*

It goes without saying that if, as we have averred, value is always relative to an organism (always value-for), then in corresponding degree is truth relative (truth-for). There is no absolute truth—even if there were, it would be unknowable—and it follows that without the postulation of an eternal organism there is no eternal truth either. This is a matter of no needful concern to humanity, for if temporal, relative truth serves as an adequate instrument to man's ends (actualizations of terminal value), it has all the utility potential to its nature and eternal, absolute truth could have no more. This utility is not only a necessary condition to the existence of truth, but it is that character wherein truth is primarily valued. Truth, therefore, "has" instrumental value—the ultimate conditions to that instrumental value being the terminal values attaching to the last means to which, as an intermediate means, truth leads.

(3) But this utility may attach to an indefinite number of "truths" —that is, sets of internally consistent postulates and their derivative propositions. This is equivalent to saying that the same body of facts may be implied by any number of different propositional sets, just as in analytic geometry, for instance, the same curve may be represented by an indefinite number of algebraic equations, depending on where and how we choose to place the coordinate axes. By convention the curve as a species is taken to be expressed in that function which is the simplest consistent with any position of the axes. This equation is called "normal" or, especially when it appears as an answer in mathematical examination papers, "correct."

(More precise than either of these appellations would be just to call it "most convenient.") Similarly, other things being equal as between two or more sets of postulates referring to the same subject matter, that set is styled "true" which is simplest. This is an instance of the well-known principle of parsimony. The facts of planetary motion are deducible from either the Ptolomaic or the Copernican theory of the solar system (or from any number of others), but we call the Copernican "true"—or at least have done so up to the advent of astronomical relativity—because it is simpler and more convenient. So with the earlier hypothesis that the planets are pushed around in their orbits by angels assigned to the task—we can deduce all the observed facts from the bare simplicity of Kepler's laws; the angels contribute nothing and are discarded as useless baggage, not worth their keep (for scientific purposes at any rate). So too in contemporary relativity theory, which recognizes only as a convenient fiction (convenient because simplest for ordinary astronomical use) the proposition that the sun is fixed in position and that the earth revolves about it rotating on its axis.

But why *should* truth be simple? Certainly for no a priori reason, but only because "it costs us too much pains to think otherwise." No man who purposes to reach a certain place will, other things being equal, walk ten miles when he can get there by walking one. The simplest set of postulates is that which causes the scholar the least unpleasantness and the greatest pleasantness in his scientific activities, that is, in satisfying the stimuli of "wanting to know." The principle of parsimony owes its recognition and compulsive influence to the fact, based on the universal trait in organisms of economy of effort, that truth-sets which conform to the principle evoke a greater degree of positive value—as in the analogous elimination of redundancy and otiosity in a sonnet, a fugue, a vignette, or in the demonstration of a geometrical theorem.

In this respect "the truth" may "have" also terminal value. As has been previously suggested, we may quite properly speak of a "beautiful theory," a "nice demonstration," or an "elegant experiment." Those who are qualified to judge may acknowledge the appositeness of such aesthetical adjectives as applied to, say, the chief accomplishments of Maxwell, Foucault, Faraday, Fresnel, Newton, Huyghens, Euclid, Archimedes, Aristarchus, Apollonius, Pappus,

Eratosthenes—and many others of the intellectual aristocracy in the republic of letters.

Selection and arrangement have been seen to characterize art. Now in so far as truth, under the stimulus of satisfying man's heuristic and cognitive needs, is constituted by a selection from and arrangement of the data given in experience—operating as we have just seen in the construction of objects and universals and, within each universe of discourse, of the propositional system of maximum simplicity—just so far may we legitimately speak of an *art of truth*. The art of beauty and the art of truth will, in respect of this common methodological basis, both be human means devised to the attainment of pleasantness—the one, immediate pleasantness in sensuous loveliness, the other, immediate pleasantness in intellectual elegance and mediate pleasantness in the facility with which it accomplishes its functions.

Once more then, if "the truth" is determined in part by simplicity, and simplicity results from axiological demands, it follows that *truth* is in part dependent on *value*.

(4) Similarly, of the indefinite number of "truths" to which explanatory utility may attach, some are more "fruitful" than others; from them may be deduced a greater range of observable facts. Theory A may provide a true explanation of a certain field, theory B of another; but if theory C is discovered to provide a true explanation of both fields, the other two, for all their truth, are discarded and superseded by, or at least subordinated to, *the* truth. The glory of the electromagnetic theory of Clerk Maxwell is to supersede by a single and simple set of mathematical equations partial truths in the previously isolated fields of light and electricity.

But again—why is a certain set of propositions to be given preference as *the* truth when, other things being equal, it explicates a greater range of experience? Because—the human organism being, as in all others, lazy in its intellectual activities—such a set provides through its synoptic convenience the greater positive value.

The view of the nature of *truth* which has been adumbrated in the preceding four subsections may freely be applied to the present axiological system. This account of *value* makes no claim to an absolute or even to an exclusive truth. Such truth as hedonism may pretend to lies only in the simplicity and internal consistency of its

set of postulates and their fruitfulness in providing a basis for the deductive explanation of an unusually wide range of facts in the realm of organic behavior. And if at times we have implied its pretension to the title of "the truth" amongst theories of value, it is only because none other extant appears, to the fond author at least, to exhibit these desired traits in as high a degree. However, let such another theory of value be devised and the author, however fond of his own, will acknowledge it to be fully as true, because as agreeably useful. Not even the probability that some or all of the postulates of this rival system might logically contradict those of hedonism would prevent their recognition as equally entitled to be called the truth. The fact that the postulate of parallels is mutually contradictory as enunciated in the geometries of Euclid, Riemann, and Lobachevski does not embarrass their independent usefulness as instruments of discovery and verification nor "trueness" as propositional systems. That the scholarly portion of mankind held fast to an exactly opposite principle for so many centuries—largely under the almost hypnotic influence of the Platonic metaphysical tradition—now appears as a signal instance of that pathetic "quest for certainty" which has vitiated so large a part of man's speculative activities. The author, though a convinced hedonist for the reasons stated in or implied by the present essay, would be the first to welcome a contradictory theory of value which should accomplish as much in as simple a manner, for the existence of such a theory would go far toward demonstrating, in a field in which a demonstration is needed, that an expectation of the absolute, of the eternal, of the exclusive, of the sure-beyond-all-possible-doubt, in a word of a somniferous set of indubitable dogmas, is perfectly futile.

Now if we suppose the still hesitant reader to ask the following question, the answer to it will stamp a colophon to this section of our inquiry: "In saying that *truth* is in the last analysis dependent on *value,* does that mean that the truth of a proposition is a function of affectivity—that a proposition cannot be true on purely logical grounds, apart from affective considerations?" An apparent paradox results when an answer is given to this question, by reason of the extent of the question's connotation. It is a fact that the view of *truth* here sketched out implies that the truth of a proposition is a function of affectivity, but it is also a fact freely to be granted that

the truth of some propositions may be established apart from affective considerations.

If there is a paradox in these statements, it may readily be dispelled. As has been clear at least since the time of Hume (although the accepted terminology is Kant's), propositions may be either analytic or synthetic, the truth of the former being determinable by antecedents lying entirely within the logical system, the truth of the latter requiring in addition to logical, factual antecedents. (I do not agree with Kant that synthetic a priori judgments are possible, on the grounds once more of the Scots Law verdict, "not proven.") The truth of synthetic propositions, then, depends in part on affective antecedents since, as we have suggested in the preceding pages, the empirical facts which support such propositions are themselves dependent on affective antecedents (not to mention that the universals implied are affective constructs). For instance, the truth of that logical war-horse, "All men are mortal," depends in part upon the denotation of *man,* and that is determined ultimately on affective grounds—by what we who state or question the proposition find it *convenient* to mean by *man* (again not to mention the universal *mortal).* Enough of this, however; the subject, now veering away from axiology toward logic, will not at present be pushed further in this direction. But it is hoped that the reader will agree, or at least understand the grounds for believing, that every meaning is a logical *construct* and no meaning an empirical, much less logical, *datum.*

Turning from the empirical to the abstract—both types of propositions (the one wholly, the other in part) depend for their truth on logical antecedents. But unless we are to move within a circle of pure formality, all logical antecedents must ascend finally to a set of unproved propositions (axioms or, better, postulates) which provides the fixed sustentation of the entire logical system. But what determines *these* propositions?—for, though unproven, they must like every existent be determined by some antecedent. Again, they are determined by *convenience;* they represent the ultimate logical expedients with which man deals with his environment under the stimulus of attaining to a satisfactory cognitive adjustment to it (with all that that implies in the way of subsequent practical adjustments). And ultimately the satisfactoriness of any adjustment

must depend on terminal affectivities—hence the essential relation of truth to beauty (defined in the broad sense as the realm of terminal values). Now if the reader will grant—after all the laborious analysis in the earlier pages of this work—that the meanings of the terms "convenience," "expedient," and "satisfactory" in the last two sentences involve affective criteria, then we may claim to have demonstrated what may be regarded as a proper answer to the question put into the mouth of the reader (in the preceding paragraph but one). This answer may now be summarized in two propositions: (1) in a proximate sense the truth of all analytic and some synthetic propositions is not a function of affectivity; (2) in an ultimate sense the truth of all propositions is a function of affectivity.

To confuse the distinction intended by these two propositions is to run the risk of one of two opposite errors: (a) to suppose that the truth of *no* propositions, not even of the final postulates of the cognitive system, is a function of affectivity is to accept by implication an absolutistic view of the nature of truth which is both rigid and, I believe, untenable by reason of the impossibility of discovering the locus of the warranting substratum, natural or supernatural; or (b) to suppose that the truth of *all* propositions, even in a proximate sense, is a function of affectivity is to subvert the possibility of truth as an impersonal standard of discovery and arbitration and to reduce all intellection to the level of wishful thinking or of mere idiocratic prejudice. There are, furthermore, any number of mean errors respecting truth between these two extremes; whereby the determination of the precise degree of admissibility of axiological considerations into the structure of truth is a task of the most consummate nicety. Fortunately for our prospects of reaching a termination to this present synoptic inquiry into the concept of *value* and its ramifications, that task may properly be left to logic and scientific methodology.

Under the general topic of *truth* we may also include *religion* as one of its special manifestations. That religion rests on the conception of *value* is even more clear.

In the sense of the term pertinent to this analysis, religion may be roughly defined as the class including those bodies of propositions, express or implied, which purport to explicate man's most

general relations toward the universe, with particular reference to a Supreme Being or Beings and to the fate of the individual after earthly life. As subsidiary defining characteristics may be mentioned: (1) the manifestation of each such set of propositions in a symbolical ritual, (2) their embodiment in an administering church, and (3) their sanctification by the weight of tradition. The last three, though usual, are not necessary; the former is the essential condition.

Now, as we have seen, every truth or purported truth serves a purpose; there is an axiological reason for its existence. Truth is not given merely; it is discovered, created, or constructed as an instrument to the accomplishment of some human satisfaction, even if that be no more than the slaking of idle curiosity. What purpose then lies at the basis of religious "truth"? What satisfaction does it bring to accomplishment? It allays fear—mild fear as in elusive uneasiness, moderate fear as in a pervading sense of cosmic insecurity, or intense fear as in the pathological behavior recorded in the curious literature of hagiography—fear of the unknown, fear of death, fear of all the vast powers of nature which lie beyond man's control or ken and which so often work him evil and infuse the universe with the chill of unfriendliness; religious "truth" furnishes the satisfaction of feeling that behind this cold and often cruel façade the universe fundamentally is working in man's favor and that in the end it will provide a secure haven for himself and his dearest hopes.

Needless to say, such a body of propositions "has" instrumental value. It is valued for its solace. (It may also—by the beauty of the associated ritual, the literary form in which it is embodied, the language in which it is expressed, and so on, and the working of the "means to end mutation"—come to be valued immediately, that is to "have" terminal value. This, however, would never take place in the case of religions did they not first serve the purpose indicated above.) Now the peculiar thing about all the historic religions is that this instrumental value is ultimately the sole reason, not only for their existence, but for the attitude of belief on the part of their adherents. Every historic religion (even Buddhism in its degeneration from primitive purity) is supported and maintained by the fact that for the body of its communicants the wish is father to the

thought. Not one of their fundamental and most hotly cherished dogmas has proven capable of demonstration or verification by objective, empirical scientific procedure, and none appears likely so to prove, even apart from the desperate ambiguities of meaning in which almost all the propositions of religion are involved. Yet no propositions have been the objects of deeper or more fanatical belief. This can only be, then, because men have deeply, fanatically, and (let us also acknowledge) pathetically *longed* to believe. But their longing is in the last analysis based on the consolation and assurance consequent upon believing, as against the insecurity of doubt and the fears of ignorance.

(This would be a justification for dogmatic religion—and perhaps, as some thinkers have held, a sufficient one—were it not, as history sadly shows, that in its functions of consolation and assurance it is uncertain, cruelly exclusive and intolerant, regressive, and, above all, deterrent to the acquisition and cultivation of that spirit of adventuresome inquiry through which only can be approached a reliably grounded body of knowledge *truly* productive of assurance and consolation and not to be shaken to its roots by every fresh advance in man's learning. Since, however, the great mass of humanity has always been incapable of the intellectual effort and emotional detachment required by science and philosophy, it is and probably for an indefinite time will be the canon of the legislator to allow free access to the analgesic pabulum of dogmatic religion, while adroitly but resolutely opposing its mischievous interference in political, societal, or scientific affairs.)

If this be a fair statement of the facts, then religion exists essentially because of its instrumental value, and that value is found in propositions which are not only not rationally supported, but which, unlike the propositions of science, are in many instances contrary to accepted fact and even in some cases self-contradictory. These considerations matter little to the mass of believers so long as religion provides the affective consolation which is its *raison d'être*. (In a more immediate sense, of course, habit is the *raison d'être* of perhaps the mass of religious belief, but this is derivative and would neither have been constituted nor be long continued were it not for the substratum of instrumental value based on terminal value in relief from cosmological inquietude.) That dogmatic religion is

thus based upon axiological foundations is evidenced, I think, by the historical fact that it has always flourished, in intensity and extent, within a given society in direct proportion to that society's insecurity, fear, and ignorance. The classic example is, of course, that fierce ferment of competing religions which followed upon the disintegration of the Hellenistic-Roman civilization, with its overwhelming "failure of nerve." But we need only look about us to see in our own times, under the almost unbearable goad of fear and insecurity if not ignorance, the increasing divarication of the tender-minded and credulous between the two great religious structures of the modern world—the religions of traditional dogmatic supernaturalism and the secular religion of equally dogmatic Marxian communism.

The round his now been made of the Good, the Beautiful, the Useful, and the True, and our present awareness of the interconnexions which the inquiry has explicated may lead us to applaud the insight of the Hellenic culture which saw in the aesthetic the fundamental aspect of man's relation to his universe—for primary among these categories is the Beautiful. For in its broader meaning it governs the realm of terminal values, while the others, being essentially concerned with various forms of instrumental value, must in the end depend upon it. Good or right conduct is behavior which in certain ways leads finally to the actualization of positive terminal value; the utility of an object is illusory unless in the end it furthers the production of objects of immediate value; the truth is that one of all possible logical sets explanatory of a field which is most valued in its efficiency in aiding the realization of practical consequences leading to terminal values, in being a means to the satisfaction of the desire to know, and perhaps in its own right for its elegance and comprehensiveness. Without the actualization of terminal value as a near or remote point of convergence, each of these—truth, utility, ethical goodness—would be as insignificant and unimportant as the merest breath of wind; more so, indeed, for the merest breath of wind must somewhere in the great catenary of Being have effects which will influence some organism's welfare; but these relationships, retaining their causal character but deprived by hypothesis of *all* final affective influence, would for any

and every organism be rendered absolutely insignificant and unimportant.

Beauty, however, depends only on terminal value, for beauty is constituted by the very fact or potentiality of terminal value. Remove that and beauty becomes not unimportant or insignificant—it becomes non-existent. And remove the denotation of beauty, and all other forms of value become empty. But the converse is not true: remove the instrumental values which determine the denotata of truth, goodness, utility, and their collateral terms, and the denotation of beauty may remain, its nature unimpaired, as lucent as ever. Of life's values, then, those included in the broad class of the beautiful are primary; all others are at most secondary. Only the ancient Greek, among the world's cultures, has embodied this insight as a moving force. In that alone is a sufficient reason for continuing to seek its light to illuminate our activities of living and knowing.

Conclusion

THE FOLLOWING are the propositions which it has been the principal purpose of this work, as an essay in axiology, to support:

1. Hedonism provides a single, simple, and consistent set of postulates under which the entire range of phenomena involving the concept of *value* may be unified, interconnected, and explained.

2. All forms of *value* are relative to particular organisms in time, and no proposition concerning *value* can be unambiguous or even meaningful unless the referential time and organism are specified.

3. Propositions and judgments of *value* are species, respectively, of propositions and judgments of *fact,* thus providing a theoretical basis in logic for the removal of ethics, aesthetics, and the other value disciplines—hitherto considered largely or wholly *sui generis* —from the jurisdiction of speculative philosophy, dogmatic theology, and personal opinion and for their establishment as distinct but interrelated branches of empirical science.

VOCABULARY OF SYMBOLS

THE FOLLOWING VOCABULARY is appended for the reader's convenience of reference. It is intended to cover only those symbols which recur in the various analyses of *value* and its derivatives, not those incidental symbols which are employed but once in particular illustrations and which are explained *in loco*. (In any of the following expressions P may be replaced by I or U with no change of meaning other than an alteration of hedonic tone.)

A	Affectivity (pleasantness, indifference, or unpleasantness, of any degree on the hedonic scale).
k	A specific probability factor; the "constant of practicability."
P	Pleasantness; positive affectivity.
[ ]P	Positive affectivity associated with the totality of whatever elements are included within the brackets.
P′ (P prime)	A second or alternative positive affectivity (to P).
p	Probability.
p_1, p_2, . . . etc.	A certain probability, a certain other probability, . . . etc.
$p_1p_2p_3$	The (mathematical) product of the several probabilities, p_1, p_2, and p_3.
I	Indifference; indifference affectivity.
(t)	The time reference of the entire proposition following it. (The expression is not, as in certain symbolic systems, a universal quantifier; in this work it refers always to a specific time or period of time, either stated or implied in the proposition.)
(t) p x	There is a certain probability of x existing as x at a certain time.
(t) p[xy(z)⊃P]	There is a certain probability that if, at a certain time x reacts to y as a believed intermediate means

	to z, then a certain degree of positive affectivity will occur in the resulting contexture.
(t) p[x"y"[y(z)]⊃P]	There is a certain probability that if, at a certain time, x reacts to a certain symbol of y, y being believed to be an intermediate means to z, then a certain degree of positive affectivity will occur as an element in the resulting contexture.
(t) p xz	The probability of the occurrence of xz at a certain time; or, there is a certain probability of xz occurring at a certain time.
(t) p(xz⊃P)	There is a certain probability that if, at a certain time, x reacts to z, a certain degree of P will occur as an element in the resulting contexture.
(t) p(x"z"P)	There is a certain probability of a contexture existing at a certain time between x and a symbol of z, which contexture includes positive affectivity.
(t) p(x"z"⊃P)	There is a certain probability that if at a certain time x reacts to a certain symbol of z, then a certain degree of P will occur in the resulting contexture.
(t) p y(z)	There is a certain probability of y existing as a believed intermediate means to z at a certain time.
(t) p(y⊃xz)	It is probable that at a certain time if a certain intermediate means is actualized, then a certain organism will react to a certain object (last means).
(t) p"y"[y (z)]	There is a certain probability that, at a certain time, a symbol of y will exist, y being believed to be an intermediate means to z.
(t) p z	There is a certain probability of z existing as z at a certain time.
(t) p "z"	There is a certain probability of a symbol of z existing as a symbol of z at a certain time.
U	Unpleasantness; negative affectivity.
U′ (U prime)	A second or alternative negative affectivity (to U).

x	An organism; the organic or "self" focus of a stimulus-response contexture.
xy(z)	A relational contexture with an organism, x, as one focus and a believed intermediate means to z, y(z), as the other.
$xy(z) \supset P$	If a relational contexture occurs between a certain organism, x, and a certain object, y(z), believed to be an intermediate means to z, then a certain degree of positive affectivity, P, will occur as an element in the contexture.
x"y"[y(z)]	A relational contexture with an organism, x, as one focus and a symbol of y, "y", as the other—y itself being a believed intermediate means to z,y(z).
$x"y"[y(z)] \supset P$	If a relational contexture is formed by the reaction of x to a certain symbol of y, y being believed to be an intermediate means to z, then a certain degree of positive affectivity will occur as an element in the contexture.
xz	A relational contexture with an organism, x, as one focus and a last means (object, action, other organism, etc.) as the other focus.
xzP	A relational contexture with an organism, x, as one focus and an object, etc., z, as the other, and which includes as one of its elements positive affectivity, P. (To assert the co-existence of these elements is to assert the existence of actual direct positive terminal value.)
$xz \supset P$	If a contexture occurs of which a certain organism, x, is one focus and a certain object (last means), z, is the other focus, then a certain degree of P will also occur as an element in that contexture.
x"z"P	A relational contexture with an organism, z, as one focus and a symbol of z, "z", as the other, and which includes as one of its elements positive affectivity, P. (To assert the co-existence of these elements is to assert the existence of actual indirect positive terminal value.)

x"z"⊃P	If x reacts to a certain symbol of z, then a certain degree of positive affectivity will occur within the resulting contexture.
y	An intermediate means—an object, action, etc.; the inorganic or "not-self" focus of some stimulus-response contextures.
y⊃xz	If a certain intermediate means, y, is actualized, then a contexture will occur of which a certain organism, x, will be one focus and a certain object (last means), z, will be the other.
y(z)	A believed (by an organism, x) intermediate means to z.
"y" (y in quotes)	A symbol of y.
"y" [y(z)]	A symbol of y, y itself being believed to be an intermediate means to z.
z	A last means (to affectivity)—an object, action, etc.; the inorganic or "not-self" focus of some stimulus-response contextures.
z′ (z prime)	A second or alternative object (to z).
"z" (z in quotes)	A symbol of z.
•	And.
∨	Either (what stands before the sign, occurs) or (what stands after the sign, occurs).
⊃	If (what stands before the sign, occurs) then (what stands after the sign, will occur).
∾	Not.
>	(What stands before the sign) is greater than (what stands after the sign).
<	(What stands before the sign) is less than (what stands after the sign).

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